

Issuance Date: November 29, 2011
Effective Date: December 1, 2011
Expiration Date: November 31, 2016

**National Pollutant Discharge Elimination System
Waste Discharge Permit No. WA-0093317**

State of Washington
DEPARTMENT OF ECOLOGY
Olympia, Washington 98504-7600

Eastern Regional Office
4601 North Monroe Street
Spokane, WA 99205-1295

In compliance with the provisions of
The State of Washington Water Pollution Control Law
Chapter 90.48 Revised Code of Washington
and
The Federal Water Pollution Control Act
(The Clean Water Act)
Title 33 United States Code, Section 1342 et seq.

Spokane County Division of Utilities
1026 W. Broadway Ave.
Spokane, WA 99260-0430

is authorized to discharge in accordance with the Special and General Conditions that follow.

Plant Location: Spokane County Regional Water Reclamation Facility, 1004 North Freya Street, Spokane, WA 99202	Receiving Water: Spokane River Latitude: 47.675833° N Longitude: 117.3446944° W
Treatment Type: Step-feed nitrification/denitrification membrane bioreactor	

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Washington State Department of Ecology

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Summary of Permit Report Submittals

Refer to the Special and General Conditions of this permit for additional submittal requirements.

Permit Section	Submittal	Frequency	First Submittal Date
S3.A	Discharge Monitoring Report	Monthly	January 15, 2012
S3.E	Reporting Permit Violations	As necessary	---
S3.E.a	Reporting Permit Violations – Immediate Reporting	As necessary	---
S3.E.b	Reporting Permit Violations – 24-Hour Reporting	As necessary	---
S3.E.c	Reporting Permit Violations – Report within Five Days	As necessary	---
S3.E.e	Reporting Permit Violations – All Other Reporting	Monthly as necessary	---
S3.F	Other Reporting	As necessary	---
S4.B	Plans for Maintaining Adequate Capacity	As necessary	---
S4.D	Notification of New or Altered Sources	As necessary	---
S4.F	Wasteload Assessment	Annually	March 1, 2013
S5.F	Bypass Notification	As necessary	---
S5.G	Operations and Maintenance Manual Update or Review Confirmation Letter	Annually	April 15, 2013
S6.D	Local Limits Update		August 15, 2013
S6.E	Annual List of Industrial Users	Annually	
S6.E	Industrial User Survey Submittal	1/permit cycle	
S6.E	Industrial User Survey Update		
S6.A.2	Accidental Spill Plan Submittal	1/permit cycle	October 1, 2014
S6.A.5	Pretreatment Report	Annually	May 1, 2012
S8	Application for Permit Renewal	1/permit cycle	October 1, 2015
S9.A	Receiving Water Study of Temperature – Quality Assurance Plan	1/permit cycle	March 1, 2012
S9.A	Receiving Water Study of Temperature Results	Annually	December 31, 2012
S9.B	Receiving Water Study – Quality Assurance Plan	1/permit cycle	March 1, 2012
S9.B	Receiving Water Study Results	1/permit cycle	March 15, 2013
S9.C	Toxics Quality Assurance Plan (QAPP)	1/permit cycle	March 15, 2012
S10A	First Acute Toxicity Characterization Data Report	See Section S10.A	April 30, 2014
S10.D	First Acute Toxicity Compliance Monitoring Reports	See Section S10.D	April 30, 2014
S10.E	Acute Toxicity TI/TRE Plan	As necessary	---

Permit Section	Submittal	Frequency	First Submittal Date
S11.A	First Chronic Toxicity Characterization Data Report	See Section S11.A	April 30, 2014
S11.D	First Chronic Toxicity Compliance Monitoring Reports	See Section S11.D	April 30, 2014
S11.D	Chronic Toxicity TI/TRE Plan	As necessary	
S12.	Annual Toxics Management Report	Annually	April 15, 2013
S13.	Regional Toxics Task Force organizational and governing documents.	1/permit cycle	November 30, 2011
G1.	Notice of Change in Authorization	As necessary	---
G4.	Reporting Planned Changes	As necessary	---
G5.	Engineering Report for Construction or Modification Activities	As necessary	---
G7.	Notice of Permit Transfer	As necessary	---
G10.	Duty to Provide Information	As necessary	---
G13.	Payment of Fees	As assessed	---
G20.	Compliance Schedules	As necessary	---
G21.	Contract Submittal	As necessary	---

Special Conditions

S1. Discharge limits

All discharges and activities authorized by this permit must comply with the terms and conditions of this permit. The discharge of any of the following pollutants more frequently than, or at a level in excess of, that identified and authorized by this permit violates the terms and conditions of this permit.

Beginning on the effective date of this permit and lasting through the expiration date, the Permittee is authorized to municipal wastewater to the Spokane River at the permitted location subject to compliance with the following limits:

S1.A. Effluent limits for the oxygen consuming pollutants implementing the Spokane River and Lake Spokane DO TMDL (as the DO TMDL was submitted & approved).

Effluent Limits: Outfall # 001 Latitude 47.675833 N Longitude -117.3469444 W		
Parameter	Seasonal Limit Applies March 1 to October 31 See notes f and g	
Carbonaceous Biochemical Oxygen Demand (5-day) (CBOD ₅)	280 pounds/day (lbs/day)	
Total Phosphorus (as P) March 1 to Oct. 31	2.80 lbs/day	
Total Ammonia (as NH ₃ -N)	Seasonal Limit	Maximum Daily Limit
For “season” of March 1 to May 31	55.4 lbs/day	16 mg/L
For “season” of June 1 to Sept. 30	14.0 lbs/day	8.0 mg/L
For “season” of Oct. 1 to Oct. 31	55.4 lbs/day	16 mg/L
Parameter	Average Monthly ^a	Average Weekly ^b
Carbonaceous Biochemical Oxygen Demand (5-day) (CBOD ₅), November 1 through February 29	4.2 milligrams/liter (mg/L); 280 lbs/day	6.3 mg/L; 420 lbs/day

S1.B Alternate effluent limits for oxygen consuming pollutants demonstrated to be equivalent to DO TMDL baseline effluent limits in S1.A

During the start up period, 2011, 2012 and 2013, the Permittee may use the “offset” total phosphorus from septic tank eliminations identified in the approved wastewater facilities plan as amended in November 2011, to offset the DO depleting value of CBOD₅, total ammonia, or total phosphorus up to the value of the total phosphorus used in the approved offset scenario submitted to and approved by Ecology. The amount of offset used for this is to be identified in the transmittal letter accompanying the monthly discharge report, DMR.

The transmittal letter will maintain a running total of offsets used through the applicable “season.” A report summarizing the offsets used from March 1 to October 31 must accompany the submission of the October DMR.

Effluent Limits: Outfall # 001		
Latitude 47.675833 N Longitude -117.3469444 W		
Parameter	Seasonal Limit Applies March 1 to October 31 See notes f and g	
Carbonaceous Biochemical Oxygen Demand (5-day) (CBOD ₅)	133.4 pounds/day (lbs/day) average	
Total Phosphorus (as P) March 1 to Oct. 31	3.34 lbs/day average	
Total Ammonia (as NH₃-N)	Seasonal Limit	Maximum Daily Limit ^d
For “season” of March 1 to March 31	1067.5 lbs/day average	16mg/L
For “season” of April 1 to May 31	66.7 lbs/day average	16 mg/L
For “season” of June 1 to Sept. 30	16.7 lbs/day average	8.0 mg/L
For “season” of Oct. 1 to Oct. 31	66.7 lbs/day average	16 mg/L
Parameter	Average Monthly ^a	Average Weekly ^b
Carbonaceous Biochemical Oxygen Demand (5-day) (CBOD ₅), November 1 through February 29	2.0 milligrams/liter (mg/L) 133 pounds/day (lbs/day)	---

S1.C. Effluent limits for remaining permitted pollutants

Effluent Limits: Outfall # 001		
Latitude 47.675833 N Longitude -117.3469444 W		
Parameter	Average Monthly ^a	Average Weekly ^b
Total Suspended Solids (TSS)	5 mg/L; 334 lbs/day	7.5 mg/L; 500 lbs/day
Total PCBs see section S9.C, S12, S13 and footnote h		
Parameter	Daily Minimum	Daily Maximum ^d
pH ^e	7.0 standard units	9.0 standard units
Parameter	Monthly Geometric Mean	Weekly Geometric Mean
Fecal Coliform Bacteria ^c	200/100 milliliter (mL)	400/100 mL
Parameter	Average Monthly	Daily Maximum ^{d, i}
Cadmium (total)	0.076 ug/L	0.233 ug/L
Lead (total)	0.772 ug/L	1.34 ug/L

Effluent Limits: Outfall # 001		
Latitude 47.675833 N Longitude -117.3469444 W		
Zinc (total)	53.8 µg/L	72.6 µg/L
Total Residual Chlorine	16.8 ug/L	33.6 ug/L
a	Average monthly effluent limit means the highest allowable average of daily discharges over a calendar month. To calculate the discharge value to compare to the limit, you add the value of each daily discharge measured during a calendar month and divide this sum by the total number of daily discharges measured. See footnote c for fecal coliform calculations.	
b	Average weekly discharge limitation means the highest allowable average of ``daily discharges" over a calendar week, calculated as the sum of all ``daily discharges" measured during a calendar week divided by the number of ``daily discharges" measured during that week. See footnote c for fecal coliform calculations.	
c	Ecology provides directions to calculate the monthly and the 7-day geometric mean in publication No. 04-10-020, Information Manual for Treatment Plant Operators available at: http://www.ecy.wa.gov/pubs/0410020.pdf	
d	The Daily Maximum effluent limit is the highest allowable daily discharge. The daily discharge is the average discharge of a pollutant measured during a calendar day. For pollutants with limits expressed in units of mass, calculate the daily discharge as the total mass of the pollutant discharged over the day. This does not apply to pH or temperature.	
e	Indicates the range of permitted values. When pH is continuously monitored, excursions between 6.0 and 7.0, or 9.0 and 10.0 shall not be considered violations provided no single excursion exceeds 60 minutes in length and total excursions do not exceed 7 hours and 30 minutes per month. Any excursions below 6.0 and above 10.0 are violations. The instantaneous maximum and minimum pH shall be reported monthly.	
f	Compliance with the effluent limitations for CBOD5, NH3-N and TP will be based on: 1) a seasonal average with the running seasonal average for the season reported monthly for tracking compliance with the allowable mass limitation, and 2) a combination of reported effluent quality, pollutant equivalencies in term of oxygen depletion and pollutant credits earned from Septic Tank Eliminations and approved by Ecology, following a revised run of the current, 2011, CE-QUAL-W2 model demonstrating compliance with DO TMDL wasteload allocation and permit conditions. The model run results and accompanying documentation will be submitted to the DO TMDL advisory committee for review and to Ecology for review, comment (if needed) and Ecology approval.	
g	Future adjustments to the final effluent limitations based on demonstrated pollutant equivalencies or non-bioavailable P will be implemented as major permit modifications requiring public notice and comment.	
h	The effluent monitoring results for PCBs will be compiled and analyzed by Ecology for the	

Effluent Limits: Outfall # 001 Latitude 47.675833 N Longitude -117.3469444 W	
	purpose of establishing a performance based PCB effluent limitation for the following permit cycle.
i	The Permittee can request a recalculation of the performance based metals effluent limits after 2 years.

S1.D. Mixing zone authorization

Mixing zone for Outfall No. 001

The following table defines the maximum boundaries of the mixing zones:

Season	Distance to mixing zone boundary		Dilution at mixing zone boundary		Plume Width at chronic mixing zone boundary
	Acute (ft.)	Chronic (ft.)	Acute (ft.)	Chronic (ft.)	
Summer	4.7	47	1.4	8.6	21
Winter	12	118	2.6	15	18

Seasonal Dilution Factors for the mixing zone for Outfall No. 001

	Summer		Winter	
Criteria	Acute	Chronic	Acute	Chronic
Aquatic Life	1.77	11.89	2.41	20.90
Human Health, Carcinogen		35.72		64.44
Human Health, Non-carcinogen		16.78		28.86

S2. Monitoring requirements

S2.A. Monitoring Schedule

Parameter	Units	Minimum Sampling Frequency	Sample Type
(1) Wastewater Influent			
Wastewater Influent means the raw sewage flow from the collection system into the treatment facility. Sample the wastewater entering the headworks of the treatment plant excluding any side-stream returns from inside the plant.			

Parameter	Units	Minimum Sampling Frequency	Sample Type
Flow (average, maximum)	MGD	Continuous ¹	Metered
pH (min, max) ⁴	s.u.	Continuous ¹	Metered
Temperature	°C	Daily	Grab ^{7 & 13}
Carbonaceous Biochemical Oxygen Demand (CBOD ₅)	mg/L, lbs/day ⁹	Daily	24-Hour Composite ²
Total Suspended Solids (TSS)	mg/L, lbs/day ⁹	Daily	24-Hour Composite ²
Total Nitrogen (TN as N)	mg/L, lbs/day ⁹	1 per week	24-Hour Composite ²
Nitrate + Nitrite (NO ₃ +NO ₂ as N)	mg/L	1 per week	24-Hour Composite ²
Total Ammonia (NH ₃ as N),	mg/L, lbs/day ⁹	3 per week ⁸	24-Hour Composite ²
Total Phosphorus (as P)	µg/L, lbs/day ⁹	Daily	24-Hour Composite ²
Arsenic (Total Recoverable)	µg/L	Once every 2 weeks	24-Hour Composite ²
Cadmium (Total Recoverable)	µg/L	Once every 2 weeks	24-Hour Composite ²
Copper (Total Recoverable)	µg/L	Once every 2 weeks	24-Hour Composite ²
Lead (Total Recoverable)	µg/L	Once every 2 weeks	24-Hour Composite ²
Zinc (Total Recoverable)	µg/L	Once every 2 weeks	24-Hour Composite ²
Mercury (Total Recoverable)	µg/L	monthly ¹⁰	24-Hour Composite ²
Silver (Total Recoverable)	µg/L	monthly ¹⁰	24-Hour Composite ²
Total PCBs ^{12, 15 & 16} In each influent trunk line	ng/L	Bi-monthly (6/year)	24-Hour Composite ²
2,3,7,8, TCDDs ^{12, 15 & 16} In each influent trunk line	ng/L	Bi-monthly (6/year)	24-Hour Composite ²
PBDE ^{12, 15 & 16} (polybrominated diphenyl ethers) In each influent trunk line	ng/L	1 per quarter	24-Hour Composite ²
(2) Final Wastewater Effluent			
Final Wastewater Effluent means wastewater exiting the last treatment process or operation.			

Parameter	Units	Minimum Sampling Frequency	Sample Type
Typically, this is after or at the exit from the chlorine contact chamber or other disinfection process. The Permittee may take effluent samples for the CBOD ₅ analysis before or after the disinfection process. If taken after, the Permittee must dechlorinate and reseed the sample.			
Flow (average, maximum)	MGD	Continuous ¹	Metered
pH (min, max) ⁴	s.u.	Continuous ¹	Metered
Temperature, daily	°C	Continuous ^{1 & 13}	Metered
Temperature, 7-DAD Max Temperature	°C		Calculated ¹⁴
Carbonaceous Biochemical Oxygen Demand (CBOD ₅) ^{6 & 18}	mg/L, lbs/day ⁹	Daily	24-Hour Composite ²
Total Suspended Solids (TSS)	mg/L, lbs/day ⁹ % removal ³	Daily	24-Hour Composite ²
Fecal Coliform ⁵	cfu/100 mL	3 per week ⁸	Grab ⁷
Dissolved Oxygen	mg/L	Daily	Grab ⁷
Total Nitrogen (TN as N)	mg/L, lbs/d ⁹	1 per week	24-Hour Composite ²
Nitrate + Nitrite (NO ₃ +NO ₂ as N)	mg/L, lbs/day ⁹	1 per week	24-Hour Composite ²
Total Ammonia (NH ₃ as N) ^{18 & 19}	mg/L as N, lbs/d ⁹	Daily	24-Hour Composite ²
Total Phosphorus (as P) ^{18 & 20}	µg/L, lbs/day ⁹	Daily	24-Hour Composite ²
Alkalinity (total as CaCO ₃)	mg/L	3 per week ⁸	Grab ⁷
Hardness	mg/L	1 per week	Grab ⁷
Arsenic (Total Recoverable)	µg/L	Once every 2 weeks	24-Hour Composite ²
Cadmium (Total Recoverable)	µg/L	Once every 2 weeks	24-Hour Composite ²
Copper (Total Recoverable)	µg/L	Once every 2 weeks	24-Hour Composite ²
Lead (Total Recoverable)	µg/L	Once every 2 weeks	24-Hour Composite ²
Zinc (Total Recoverable)	µg/L	Once every 2 weeks	24-Hour Composite ²
Mercury (Total Recoverable)	µg/L	monthly ¹⁰	24-Hour Composite ²
Silver (Total Recoverable)	µg/L	monthly ¹⁰	24-Hour Composite ²
Total PCBs ^{12, 15 & 16}	ng/L	1 per quarter ¹¹	See footnote 22

Parameter	Units	Minimum Sampling Frequency	Sample Type
2,3,7,8, TCDDs ^{12 & 16}	ng/L	1 per quarter ¹¹	See footnote 22
PBDE ^{12, 16 & 17} (polybrominated diphenyl ethers)	ng/L	1 per quarter ¹¹	See footnote 22
Total Residual Chlorine	µg/L	Twice per day	Grab ⁷
(3) Whole Effluent Toxicity Testing – Final Wastewater Effluent			
Acute Toxicity Testing	---	Quarterly ¹¹ in 2014	24-Hour Composite ²
Chronic Toxicity Testing	---	Quarterly ¹¹ in 2014	24-Hour Composite ²
Additional requirements specified in Permit Condition S10 and S11.			
(4) Pretreatment			
As specified in Permit Condition S6.			
(5) Permit Renewal Application Requirements – Final Wastewater Effluent			
Beginning in 2012, the Permittee must record and report the wastewater treatment plant flow discharged on the day it collects the sample for priority pollutant testing with the discharge monitoring report.			
Temperature	°C	Once/July Once/December	Measurement
CBOD ₅ ⁶	mg/L	Once per year	24-Hour Composite ²
Fecal Coliform ⁵	Organisms/100 mL	Once per year	Grab ⁷
Dissolved Oxygen	mg/L	Once per year	Grab ⁷
Total Kjeldahl Nitrogen	mg/L as N	Once per year	24-Hour Composite ²
Total Ammonia ¹⁹	mg/L as N	Once per year	24-Hour Composite ²
Nitrate plus Nitrite	mg/L as N	Once per year	24-Hour Composite ²
Oil and Grease	mg/L	Once per year	Grab ⁷
Phosphorus (Total) ²⁰	mg/L as P	Once per year	24-Hour Composite ²
Total Dissolved Solids	mg/L	Once per year	24-Hour Composite ²
Total Hardness	mg/L	Once per year	24-Hour Composite ²
Cyanide	µg/L	Once per year	Grab ⁷
Total Phenolic Compounds	µg/L	Once per year	Grab ⁷
Priority Pollutants (PP) –	µg/L; nanograms	Once per year	24-Hour

Parameter	Units	Minimum Sampling Frequency	Sample Type
Total Metals	(ng/L) for mercury		Composite ² Grab ⁷ for mercury
PP – Volatile Organic Compounds	µg/L	Once per year	Grab ⁷
PP – Acid-extractable Compounds	µg/L	Once per year	24-Hour Composite ²
PP – Base-neutral Compounds	µg/L	Once per year	24-Hour Composite ²
(6) Receiving Water Temperature Study			
As specified in Section S9.			
(7) Receiving Water Study			
As specified in Permit Condition S9.A & S9.B.			
1	Continuous means uninterrupted except for brief lengths of time for calibration, for power failure, or for unanticipated equipment repair or maintenance.		
2	24-hour composite means a series of individual samples collected over a 24-hour period into a single container, and analyzed as one sample.		
3	$\% \text{ removal} = \frac{(\text{Influent concentration (mg/L)} - \text{Effluent concentration (mg/L)})}{\text{Influent CBOD}_5 \text{ (mg/L) or TSS}} \times 100$ <p>Calculate the percent (%) removal of TSS using the above equation.</p>		
4	The Permittee must report the instantaneous maximum and minimum pH daily. Do not average pH values.		
5	Report a numerical value for fecal coliforms following the procedures in Ecology's <i>Information Manual for Wastewater Treatment Plant Operators</i> , Publication Number 04-10-020 available at: http://www.ecy.wa.gov/programs/wq/permits/guidance.html . Do not report a result as too numerous to count (TNTC).		
6	Take effluent samples for the CBOD ₅ analysis before or after the disinfection process. If taken after, dechlorinate and reseed the sample.		
7	Grab means an individual sample collected over a fifteen (15) minute, or less, period.		
8	3/week means three (3) times during each calendar week and on a rotational basis throughout the days of the week, except weekends and holidays.		
9	Calculation means figured concurrently with the respective sample, using the following formula: Concentration (in mg/L) X Flow (in MGD) X Conversion Factor (8.34) = lbs/day		
10	Monthly means once every calendar month during alternate weeks.		
11	Quarterly sampling periods are January through March, April through June, July through September, and October through December.		
12	Sampling shall begin after approval of the QAPP required in S9.C.		
13	Temperature grab sampling must occur when the effluent is at or near its daily maximum		

Parameter	Units	Minimum Sampling Frequency	Sample Type
	temperature, which usually occurs in the late afternoon. If measuring temperature continuously, the Permittee must determine and report a daily maximum from half-hour measurements in a 24-hour period. Continuous monitoring instruments must achieve an accuracy of 0.2 degrees C and the Permittee must verify accuracy annually.		
14	Calculate a 7-DAD Max for each day by averaging each days maximum temperature value with the values from the six (6) preceding days.		
15	For PCBs use EPA method 1668 with a reporting limit or quantitation limit of 10 pg/L per congener. For influent monitoring and source tracing a higher limit can be proposed to Ecology in the QAPP if the higher reporting limit still provides adequate source tracing and identification.		
16	See permit section S13.		
17	For PBDEs use draft EPA method 1614 with a reporting limit or quantitation limit of 5 pg/L per congener. For influent monitoring and source tracing a higher limit can be proposed to Ecology in the QAPP if the higher reporting limit still provides adequate source tracing and identification.		
18	Beginning March 1, 2018; for the 3 parameters (CBOD ₅ , NH ₃ and TP) with WLAs established by the Spokane River and Lake Spokane DO TMDL, the monthly discharge monitoring report must provide the following information for the “ten year assessment” monitoring and future compliance projections: monthly average, daily maximum, running total for the “season,” running average for the “season,” projected trend of total lbs. and average concentration and average daily lbs. for remainder of the “season” with future compliance target indicated. If the trend projection indicates a significant potential for noncompliance with the allowable mass limitations to be in effect once the period of formal compliance begins in 2021, the Permittee is to communicate the anticipated result of the projection to the Department with appropriate recommendations to correct any trend potentially resulting in noncompliance.		
19	The reporting limit for Total Ammonia (as N) is 50 ug/L, the analytical protocol is listed in Appendix A of this permit.		
20	The reporting limit for Total Phosphorus is 5 ug/L, the analytical protocol is listed in Appendix A of this permit.		
21	<p>See Appendix A for the required detection (DL) or quantitation (QL) levels.</p> <p>Report single analytical values below detection as “less than (detection level)” where (detection level) is the numeric value specified in attachment A.</p> <p>Report single analytical values between the agency-required detection and quantitation levels with qualifier code of j following the value.</p> <p>To calculate the average value (monthly average):</p> <ul style="list-style-type: none"> • Use the reported numeric value for all parameters measured between the agency- 		

Parameter	Units	Minimum Sampling Frequency	Sample Type
	<p>required detection value and the agency-required quantitation value.</p> <ul style="list-style-type: none"> For values reported below detection, use one-half the detection value if the lab detected the parameter in another sample for the reporting period. For values reported below detection, use zero if the lab did not detect the parameter in another sample for the reporting period. <p>If the Permittee is unable to obtain the required DL and QL in its effluent due to matrix effects, the Permittee must submit a matrix-specific detection limit (MDL) and a quantitation limit (QL) to Ecology with appropriate laboratory documentation.</p>		
22	The sample type is to be established in the QAPP see S12.		

S2.B. Sampling and analytical procedures

Samples and measurements taken to meet the requirements of this permit must represent the volume and nature of the monitored parameters. The Permittee must conduct representative sampling of any unusual discharge or discharge condition, including bypasses, upsets, and maintenance-related conditions that may affect effluent quality.

Sampling and analytical methods used to meet the monitoring requirements specified in this permit must conform to the latest revision of the *Guidelines Establishing Test Procedures for the Analysis of Pollutants* contained in 40 CFR Part 136.

S2.C. Flow measurement, field measurement and continuous monitoring devices

The Permittee must:

1. Select and use appropriate flow measurement, field measurement, and continuous monitoring devices and methods consistent with accepted scientific practices.
2. Install, calibrate, and maintain these devices to ensure the accuracy of the measurements is consistent with the accepted industry standard and the manufacturer's recommendation for that type of device.
3. Calibrate continuous monitoring instruments weekly unless it can demonstrate a longer period is sufficient based on monitoring records. The Permittee:
 - a. May calibrate apparatus for continuous monitoring of dissolved oxygen by air calibration.
 - b. Must calibrate continuous pH measurement instruments using a grab sample analyzed in the lab with a pH meter calibrated with standard buffers and analyzed within 15 minutes of sampling.

- c. Must calibrate continuous chlorine measurement instruments using a grab sample analyzed in the laboratory within 15 minutes of sampling.
4. Calibrate micro-recording temperature devices, known as thermistors, using protocols from Ecology's Quality Assurance Project Plan Development Tool (Continuous Temperature Sampling Protocols for the Environmental Monitoring and Trends). This document is available online at:
<http://www.ecy.wa.gov/programs/eap/qa/docs/QAPPtool/Mod6%20Ecology%20SOPs/Protocols/ContinuousTemperatureSampling.pdf>
Calibration as specified in this document is not required if the Permittee uses recording devices certified by the manufacturer.
5. Use field measurement devices as directed by the manufacturer and do not use reagents beyond their expiration dates.
6. Calibrate flow monitoring devices at a minimum frequency of at least one calibration per year.
7. Maintain calibration records for at least three years.

S2.D. Laboratory accreditation

The Permittee must ensure that all monitoring data required by Ecology is prepared by a laboratory registered or accredited under the provisions of chapter 173-50 WAC, Accreditation of Environmental Laboratories. Flow, temperature, settleable solids, conductivity, pH, and internal process control parameters are exempt from this requirement.

The Permittee must obtain accreditation for conductivity and pH if it must receive accreditation or registration for other parameters.

S2.E. Request for reduction in monitoring

The Permittee may request a reduction of the sampling frequency after twelve (12) months of monitoring. Ecology will review each request and at its discretion grant the request when it reissues the permit or by a permit modification.

The Permittee must:

1. Provide a written request.
2. Clearly state the parameters for which it is requesting reduced monitoring.
3. Clearly state the justification for the reduction.

S3. Reporting and recording requirements

The Permittee must monitor and report in accordance with the following conditions. Falsification of information submitted to Ecology is a violation of the terms and conditions of this permit.

S3.A. Reporting

The first monitoring period begins on the effective date of the permit. The Permittee must:

1. Summarize, report, and submit monitoring data obtained during each monitoring period on a Discharge Monitoring Report (DMR) form provided, or otherwise approved, by Ecology. Include a summary listing daily results for the parameters tabulated in Special Condition S2, including MDLs and QLs or reporting limits (when applicable). If submitting DMRs electronically, report a value for each day sampling occurred and for the summary values (when applicable) included on the form.
2. Submit the form as required with the words "no discharge" entered in place of the monitoring results, if the facility did not discharge during a given monitoring period. If submitting DMRs electronically, you must enter "no discharge" for an entire DMR, for a specific monitoring point, or for a specific parameter as appropriate.
3. Report the test method, the reporting limit, or the DL and the QL on the discharge monitoring report or in the required report, if the Permittee used an alternative method not specified in the permit and as allowed in Appendix A.
4. Include the following information (for priority pollutant organic and metal parameters lab reports): sampling date, sample location, date of analysis, parameter name, CAS number, analytical method/number, method detection limit (MDL), laboratory practical quantitation limit (PQL), reporting units, and concentration detected. The Permittee must submit a copy of the contract laboratory report to provide this information.

Analytical results from samples sent to a contract laboratory must also include information on the chain of custody, QA/QC results, and documentation of accreditation for the parameter. If the Permittee submits electronic DMRs, then it must attach an electronic file of the lab report to the electronic DMR.

5. Ensure that DMR forms are postmarked or received by Ecology no later than the dates specified below, unless otherwise specified in this permit. If submitting DMRs electronically, submit the DMR no later than the dates specified below, unless otherwise specified in this permit.
6. Submit DMRs for parameters with the monitoring frequencies specified in S2 (monthly, quarterly, annual, etc.) at the reporting schedule identified below. The Permittee must submit **monthly** DMRs by the 15th day of the following month.
7. Submit reports to Ecology online using Ecology's electronic DMR submittal forms or send reports to Ecology at:

Water Quality Permit Coordinator
Department of Ecology
Eastern Regional Office
4601 North Monroe Street
Spokane, WA 99205-1295

S3.B. Records retention

The Permittee must retain records of all monitoring information for a minimum of three (3) years. Such information must include all calibration and maintenance records and all original recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit. The Permittee must extend this period of retention during the course of any unresolved litigation regarding the discharge of pollutants by the Permittee or when requested by Ecology.

S3.C. Recording of results

For each measurement or sample taken, the Permittee must record the following information:

1. The date, exact place, method, and time of sampling or measurement
2. The individual who performed the sampling or measurement
3. The dates the analyses were performed
4. The individual who performed the analyses
5. The analytical techniques or methods used
6. The results of all analyses

S3.D. Additional monitoring by the Permittee

If the Permittee monitors any pollutant listed in Section S2 of this permit more frequently than required by Section S2 of this permit, using test procedures approved under 40 CFR part 136, then the Permittee must include the results of such monitoring in the calculation and reporting of the data submitted in the Permittee's DMR. Monitoring using test methods not consistent or capable of producing equivalent representative results to methods listed in S2 and Appendix A should not be in calculation and monitoring results.

S3.E. Reporting permit violations

The Permittee must take the following actions when it violates or is unable to comply with any permit condition:

1. Immediately take action to stop, contain, and cleanup unauthorized discharges or otherwise stop the noncompliance and correct the problem.
2. If applicable, immediately repeat sampling and analysis. Submit the results of any repeat sampling to Ecology within thirty (30) days of sampling.

a. Immediate reporting

The Permittee must immediately report to Ecology, the Department of Health, Drinking Water Program, and Spokane Regional Health District (at the numbers listed below), all:

- Failures of the disinfection system.

- Collection system overflows discharging to a water body that may be used for drinking water.
- Plant bypasses discharging to a water body used as a source of drinking water.
- Any other failures of the sewage system (pipe breaks, etc)

Eastern Regional Office	509-329-3400
Department of Health,	800-521-0323 (business hours)
Drinking Water Program	877-481-4901 (after business hours)
Spokane Regional Health District	(509) 324-1500 for general information or Environmental Public Health at (509) 324-1560

b. Twenty-four-hour reporting

The Permittee must report the following occurrences of non-compliance by telephone to Ecology at (509)329-3400, within 24 hours from the time the Permittee becomes aware of any of the following circumstances:

1. Any non-compliance that may endanger health or the environment, unless previously reported under immediate reporting requirements.
2. Any unanticipated bypass that causes an exceedance of an effluent limit in the permit (See Part S5.F, "Bypass Procedures").
3. Any upset that causes an exceedance of an effluent limit in the permit (See G.15, "Upset").
4. Any violation of a maximum daily or instantaneous maximum discharge limit for any of the pollutants in Section S1.A of this permit.
5. Any overflow prior to the treatment works, whether or not such overflow endangers health or the environment or exceeds any effluent limit in the permit.

c. Report within five days

The Permittee must also provide a written submission within five days of the time that the Permittee becomes aware of any reportable event under subparts a or b, above. The written submission must contain:

1. A description of the non-compliance and its cause.
2. The period of non-compliance, including exact dates and times.
3. The estimated time the Permittee expects the non-compliance to continue if not yet corrected.
4. Steps taken or planned to reduce, eliminate, and prevent recurrence of the non-compliance.

5. If the non-compliance involves an overflow prior to the treatment works, an estimate of the quantity (in gallons) of untreated overflow.

d. Waiver of written reports

Ecology may waive the written report required in subpart c, above, on a case-by-case basis upon request if the Permittee has submitted a timely oral report.

e. All other permit violation reporting

The Permittee must report all permit violations, which do not require immediate or within 24 hours reporting, when it submits monitoring reports for S3.A ("Reporting"). The reports must contain the information listed in subpart c, above. Compliance with these requirements does not relieve the Permittee from responsibility to maintain continuous compliance with the terms and conditions of this permit or the resulting liability for failure to comply.

f. Report submittal

The Permittee must submit reports to the address listed in S3.A.

S3.F. Other reporting

The Permittee must report a spill of oil or hazardous materials in accordance with the requirements of RCW 90.56.280 and chapter 173-303-145. You can obtain further instructions at the following website:

<http://www.ecy.wa.gov/programs/spills/other/reportaspill.htm>.

Where the Permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application, or in any report to Ecology, it must submit such facts or information promptly.

S3.G. Maintaining a copy of this permit

The Permittee must keep a copy of this permit at the facility and make it available upon request to Ecology inspectors.

S4. Facility loading

S4.A. Design criteria

The flows or waste loads for the permitted facility must not exceed the following design criteria:

Parameter	Design Quantity
Monthly Average Flow	8.0 MGD
Maximum Month Design Flow (MMDF)	8.5 MGD
Peak Design Flow (PDF)	12.1 MGD

BOD ₅ loading for maximum month	18,270lb/day
TSS loading for maximum month	20,080 lb/day
Orthophosphate PO ₄ -P	281 lb/day
Total Phosphorus TP	603.1 lb/day
Ammonia NH ₄ -N	1,967 lb/day
Total Nitrogen TN	2,978 lb/day

S4.B. Plans for maintaining adequate capacity

a. Conditions triggering plan submittal

The Permittee must submit a plan and a schedule for continuing to maintain capacity to Ecology when:

1. The actual flow or waste load reaches 85 percent of any one of the design criteria in S4.A for three consecutive months. If flow, then an additional criterion is: is there any further capacity at the City's Riverside Park Water Reclamation Facility available for diversion of wastewater to the interceptors?
2. The projected plant flow or loading would reach design capacity within five years. And, there is no further capacity at the City's Riverside Park Water Reclamation Facility available for diversion of wastewater to the interceptors.

Design capacity is defined by the table above in combination with the City County agreement for 10 MGD from the County service area to go to the City's Riverside Park Water Reclamation Facility.

b. Plan and schedule content

The plan and schedule must identify the actions necessary to maintain adequate capacity for the expected population growth and to meet the limits and requirements of the permit. The Permittee must consider the following topics and actions in its plan.

1. Analysis of the present design and proposed process modifications
2. Reduction or elimination of excessive infiltration and inflow of uncontaminated ground and surface water into the sewer system
3. Limits on future sewer extensions or connections or additional waste loads
4. Modification or expansion of facilities
5. Reduction of industrial or commercial flows or waste loads

Engineering documents associated with the plan must meet the requirements of WAC 173-240-060, "Engineering Report," and be approved by Ecology prior to any construction.

If the Permittee intends to apply for state or federal funding for the design or construction of a facility project, the plan may also need to meet the environmental review requirements as described in 40 CFR 35.3040 and 40 CFR 35.3045, and it may also need to demonstrate cost effectiveness as required by WAC 173-95-730. The plan must specify any contracts, ordinances, methods for financing, or other arrangements necessary to achieve this objective.

S4.C. Duty to mitigate

The Permittee must take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment.

S4.D. Notification of new or altered sources

1. The Permittee must submit written notice to Ecology whenever any new discharge or a substantial change in volume or character of an existing discharge into the wastewater treatment plant is proposed which:
 - a. Would interfere with the operation of, or exceed the design capacity of, any portion of the wastewater treatment plant.
 - b. Is not part of an approved general sewer plan or approved plans and specifications.
 - c. Is subject to pretreatment standards under 40 CFR Part 403 and Section 307(b) of the Clean Water Act.
2. This notice must include an evaluation of the wastewater treatment plant's ability to adequately transport and treat the added flow and/or waste load, the quality and volume of effluent to be discharged to the treatment plant, and the anticipated impact on the Permittee's effluent [40 CFR 122.42(b)].

S4.E. Wasteload assessment

The Permittee must conduct an annual assessment of its influent flow and waste load and submit a report to Ecology by March 1, 2013, and annually thereafter. The Permittee must submit a paper copy and an electronic copy (preferably in a portable document format (PDF)).

The report must contain:

1. A description of compliance or non-compliance with the permit effluent limits.
2. A comparison between the existing and design:
 - a. Monthly average flows
 - b. Peak flows
 - c. CBOD₅ loading
 - d. Total suspended solids loadings

- e. Nitrogen loading
- f. Total Phosphorus loading
- 3. The percent change in the above parameters since the previous report (except for the first report).
- 4. The present and design population or population equivalent.
- 5. The projected population growth rate.
- 6. The estimated date upon which the Permittee expects the wastewater treatment plant to reach design capacity and if appropriate when the combined capacity of the treatment plant and flow splitting agreement with the City will be reached, according to the most restrictive of the parameters above.

Ecology may modify the interval for review and reporting if it determines that a different frequency is sufficient.

S5. Operation and maintenance

The Permittee must at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances), which are installed to achieve compliance with the terms and conditions of this permit.

Proper operation and maintenance also includes keeping a daily operation logbook (paper or electronic), adequate laboratory controls, and appropriate quality assurance procedures. This provision of the permit requires the Permittee to operate backup or auxiliary facilities or similar systems only when the operation is necessary to achieve compliance with the conditions of this permit.

S5.A. Certified operator

This permitted facility must be operated by an operator certified by the state of Washington for at least a Class IV plant. This operator must be in responsible charge of the day-to-day operation of the wastewater treatment plant. An operator certified for at least a Class III plant must be in charge during all regularly scheduled shifts.

S5.B. Operation and maintenance program

The Permittee must:

- 1. Institute an adequate operation and maintenance program for the entire sewage system.
- 2. Keep maintenance records on all major electrical and mechanical components of the treatment plant, as well as the sewage system and pumping stations. Such records must clearly specify the frequency and type of maintenance recommended by the manufacturer and must show the frequency and type of maintenance performed.
- 3. Make maintenance records available for inspection at all times.

S5.C. Short-term reduction

The Permittee must schedule any facility maintenance, which might require interruption of wastewater treatment and degrade effluent quality, during non-critical water quality periods and carry this maintenance out in a manner approved by Ecology.

If a Permittee contemplates a reduction in the level of treatment that would cause a violation of permit discharge limits on a short-term basis for any reason, and such reduction cannot be avoided, the Permittee must:

1. Give written notification to Ecology, if possible, thirty (30) days prior to such activities.
2. Detail the reasons for, length of time of, and the potential effects of the reduced level of treatment.

This notification does not relieve the Permittee of its obligations under this permit.

S5.D. Electrical power failure

The Permittee must ensure that adequate safeguards prevent the discharge of untreated wastes or wastes not treated in accordance with the requirements of this permit during electrical power failure at the treatment plant and/or sewage lift stations. Adequate safeguards include, but are not limited to, alternate power sources, standby generator(s), or retention of inadequately treated wastes.

The Permittee must maintain Reliability Class I (EPA 430/9-74-001) at the wastewater treatment plant. Reliability Class I requires a backup power source sufficient to operate all vital components and critical lighting and ventilation during peak wastewater flow conditions.

S5.E. Prevent connection of inflow

The Permittee must strictly enforce its sewer ordinances and not allow the connection of inflow (roof drains, foundation drains, etc.) to the sanitary sewer system.

S5.F. Bypass procedures

This permit prohibits a bypass, which is the intentional diversion of waste streams from any portion of a treatment facility. Ecology may take enforcement action against a Permittee for a bypass unless one of the following circumstances (1, 2, or 3) applies.

1. Bypass for essential maintenance without the potential to cause violation of permit limits or conditions.

2. This permit authorizes a bypass if it allows for essential maintenance and does not have the potential to cause violations of limits or other conditions of this permit, or adversely impact public health as determined by Ecology prior to the bypass. The Permittee must submit prior notice, if possible, at least ten (10) days before the date of the bypass.
3. Bypass which is unavoidable, unanticipated, and results in non-compliance of this permit.

This permit authorizes such a bypass only if:

- a. Bypass is unavoidable to prevent loss of life, personal injury, or severe property damage. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which would cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass.
 - b. No feasible alternatives to the bypass exist, such as:
 - The use of auxiliary treatment facilities.
 - Retention of untreated wastes.
 - Maintenance during normal periods of equipment downtime, but not if the Permittee should have installed adequate backup equipment in the exercise of reasonable engineering judgment to prevent a bypass.
 - Transport of untreated wastes to another treatment facility or preventative maintenance), or transport of untreated wastes to another treatment facility.
 - c. Ecology is properly notified of the bypass as required in Condition S3.E of this permit.
4. If bypass is anticipated and has the potential to result in non-compliance of this permit.
 - a. The Permittee must notify Ecology at least thirty (30) days before the planned date of bypass. The notice must contain:
 - A description of the bypass and its cause.
 - An analysis of all known alternatives which would eliminate, reduce, or mitigate the need for bypassing.
 - A cost-effectiveness analysis of alternatives including comparative resource damage assessment.
 - The minimum and maximum duration of bypass under each alternative.
 - A recommendation as to the preferred alternative for conducting the bypass.
 - The projected date of bypass initiation.
 - A statement of compliance with SEPA.

- A request for modification of water quality standards as provided for in WAC 173-201A-410, if an exceedance of any water quality standard is anticipated.
 - Details of the steps taken or planned to reduce, eliminate, and prevent reoccurrence of the bypass.
- b. For probable construction bypasses, the Permittee must notify Ecology of the need to bypass as early in the planning process as possible. The Permittee must consider the analysis required above during preparation of the engineering report or facilities plan and plans and specifications and must include these to the extent practical. In cases where the Permittee determines the probable need to bypass early, the Permittee must continue to analyze conditions up to and including the construction period in an effort to minimize or eliminate the bypass.
- c. Ecology will consider the following prior to issuing an administrative order for this type of bypass:
- If the bypass is necessary to perform construction or maintenance-related activities essential to meet the requirements of this permit.
 - If feasible alternatives to bypass exist, such as the use of auxiliary treatment facilities, retention of untreated wastes, stopping production, maintenance during normal periods of equipment down time, or transport of untreated wastes to another treatment facility.
 - If the Permittee planned and scheduled the bypass to minimize adverse effects on the public and the environment.

After consideration of the above and the adverse effects of the proposed bypass and any other relevant factors, Ecology will approve or deny the request. Ecology will give the public an opportunity to comment on bypass incidents of significant duration, to the extent feasible. Ecology will approve a request to bypass by issuing an administrative order under RCW 90.48.120.

S5.G. Operations and maintenance (O&M) manual

a. O&M manual submittal and requirements

The Permittee must:

1. Review the O&M Manual at least annually and confirm this review **by letter to Ecology by April 15, 2013** of each year.
2. Submit to Ecology for review and approval substantial changes or updates to the O&M Manual whenever it incorporates them into the manual. The Permittee must submit a paper copy and an electronic copy (preferably as a PDF).
3. Keep the approved O&M Manual at the permitted facility.
4. Follow the instructions and procedures of this manual.

b. O&M manual components

In addition to the requirements of WAC 173-240-080 (1) through (5), the O&M Manual must include:

1. Emergency procedures for cleanup in the event of wastewater system upset or failure.
2. Wastewater system maintenance procedures that contribute to the generation of process wastewater.
3. Reporting protocols for submitting reports to Ecology to comply with the reporting requirements in the discharge permit.
4. Any directions to maintenance staff when cleaning or maintaining other equipment or performing other tasks which are necessary to protect the operation of the wastewater system (for example, defining maximum allowable discharge rate for draining a tank, blocking all floor drains before beginning the overhaul of a stationary engine).
5. The treatment plant process control monitoring schedule.
6. Minimum staffing adequate to operate and maintain the treatment processes and carry out compliance monitoring required by the permit.
7. Specify other items on case-by-case basis such as O&M for collection systems pump stations, lagoon liners, etc.

S6. Pretreatment

S6.A. General Requirements

1. The Permittee shall implement the Industrial Pretreatment Program in accordance with the legal authorities, policies, procedures, and financial provisions described in the Permittee's approved pretreatment program submittal entitled "Industrial Pretreatment Program" and updated on February 5, 2001; any approved revisions thereto; and the General Pretreatment Regulations (40 CFR Part 403). The Ordinance section containing the local limits was last updated October 1, 2009.

A meeting was held on October 20, 2004 at the Department of Ecology Eastern Regional Office on the subject of Spokane-area pretreatment. The Department of Ecology, City of Spokane, Spokane County, and the City of Spokane Valley agreed that Spokane County has the authority to administer its Delegated Pretreatment Program to their present and future sewer customers located within their designated sewer service areas in Spokane County and in the City of Spokane Valley. For the purpose of this permit and pretreatment program delegation, this applies to customers who contribute wastewater into the Spokane County sewer collection system and are located outside of the corporate limits of the City of Spokane and within the City of Spokane Valley and Spokane County.

Existing permitted facilities that this applies to, Ecolite, Galaxy Compound Semiconductors, Lloyd Industries, Honeywell, Kemira Water Solutions, American On-Site Services and Novation in the City of Spokane Valley, and the Mica Landfill in Spokane County. The County acknowledges that as owner and operator of a wastewater collection system it is their responsibility to protect their infrastructure, and by agreement the infrastructure of the downstream POTWs, and accepts the obligations of a Delegated Pretreatment Program.

Both the City of Spokane and Spokane County, as the control authority for their Delegated Pretreatment Programs, will continue to enforce and update, if necessary and appropriate, their interlocal agreements and/or multijurisdictional pretreatment agreement with “contributing” jurisdictions such as Millwood, the City of Spokane Valley and the City of Spokane. Some of these actions will include conducting Industrial User Surveys, monitoring, and permitting commercial and/or industrial users.

At a minimum, the following pretreatment implementation activities shall be undertaken by the Permittee:

- a. Enforce categorical pretreatment standards promulgated pursuant to Section 307(b) and (c) of the Federal Clean Water Act (hereinafter, the Act), prohibited discharge standards as set forth in 40 CFR 403.5, local limitations specified in Section 08.03A.0204 of Ordinance 8.03A, or state standards, which ever are most stringent or apply at the time of issuance or modification of a local industrial waste discharge permit. Locally derived limitations shall be defined as pretreatment standards under Section 307(d) of the Act and shall not be limited to categorical industrial facilities.
- b. Issue industrial waste discharge permits to all significant industrial users [SIUs, as defined in 40 CFR 403.3(v)] contributing to the treatment system, including those from other jurisdictions. Industrial waste discharge permits shall contain as a minimum, all the requirements of 40 CFR 403.8 (f)(1)(iii). The Permittee shall coordinate the permitting process with the Department regarding any industrial facility, which may possess a state waste discharge permit issued by the Department. Once issued, an industrial waste discharge permit will take precedence over a state-issued waste discharge permit.
- c. Maintain and update, as necessary, records identifying the nature, character, and volume of pollutants contributed by industrial users to the POTW. Records shall be maintained for at least a three-year period.
- d. Perform inspections, surveillance, and monitoring activities on industrial users to determine and/or confirm compliance with applicable pretreatment standards and requirements. A thorough inspection of SIUs shall be conducted annually.

Frequency of regular local monitoring of SIU wastewaters shall normally be commensurate with the character and volume of the wastewater but shall not be less than once per year. Sample collection and analysis shall be performed in accordance with 40 CFR Part 403.12(b)(5)(ii)-(v) and 40 CFR Part 136.

- e. Enforce and obtain remedies for noncompliance by any industrial users with applicable pretreatment standards and requirements. Once violations have been identified, the Permittee shall take timely and appropriate enforcement action to address the noncompliance. The Permittee's action shall follow its enforcement response procedures and any amendments, thereof.
- f. Publish, at least annually in a newspaper of general circulation in the Permittee's service area, a list of all nondomestic users which, at any time in the previous 12 months, were in significant noncompliance as defined in 40 CFR 403.8(f)(2)(viii) through 40 CFR 403.8(f)(2)(viii)(H).
- g. If the Permittee elects to conduct sampling of an SIU's discharge in lieu of requiring user self-monitoring, it must satisfy all requirements of 40 CFR Part 403.12.
This includes monitoring and record keeping requirements of Sections 403.12(g) and (o). For SIUs subject to categorical standards (CIUs), the Permittee may either complete baseline and initial compliance reports for the CIU (when required by 403.12(b) and (d)) or require these of the CIU. The Permittee must ensure that it provides SIUs the results of sampling in a timely manner, inform SIUs of their right to sample, their obligations to report any sampling they do, to respond to non-compliance, and to submit other notifications. These include a slug load report (403.12(f)), notice of changed discharge (403.12(j)), and hazardous waste notifications (403.12(p)). If sampling for the SIU, the Permittee must not sample less than once in every six-month period unless the Permittee's approved program includes procedures for reduction of monitoring for Middle-Tier or Non-Significant Categorical Users per 403.12(e)(2) and (3) and those procedures have been followed.
- h. Develop and maintain a data management system designed to track the status of the Permittee's industrial user inventory, industrial user discharge characteristics, and compliance status.
- i. Maintain adequate staff, funds, and equipment to implement its pretreatment program.
- j. Establish, where necessary, legally binding agreements with contributing jurisdictions to ensure compliance with applicable pretreatment requirements by commercial or industrial users within these jurisdictions.

These agreements must identify the agency responsible to perform the various implementation and enforcement activities in the contributing jurisdiction. In addition, the Permittee must develop Multi-Jurisdictional Agreements that outlines the specific roles, responsibilities, and pretreatment activities of each jurisdiction.

2. The Permittee shall review, change if necessary, and submit to the Department for approval **by October 1, 2014**; an updated Accidental Spill Prevention Program. The program, as approved by the Department, shall include a schedule for implementation, and shall become an enforceable part of these permit conditions.
3. The Permittee must evaluate any new designated Significant Industrial User within one year of designation for a plan or other action to control Slug Discharges and also in accordance with 40 CFR 403.8(f)(1)(iii)(B)(6), 40 CFR 403.8(f)(2)(vi) and 40 CFR 403.8(f)(2)(vi)(A)-(D).
4. The Permittee must evaluate at a minimum whether or not each Significant Industrial User needs a plan to control slug discharges. For purposes of this section, a slug discharge is any discharge of a non-routine, episodic nature, including but not limited to an accidental spill or non-customary batch discharge.

The Permittee must make the results of this evaluation available to Ecology upon request. If the Permittee decides that a slug control plan is needed, the plan must contain, at a minimum, the following elements:

- a. Description of discharge practices, including non-routine batch discharges.
 - b. Description of stored chemicals.
 - c. Procedures for immediately notifying the Permittee of slug discharges, including any discharge that would violate a prohibition under 40 CFR 403.5(b), with procedures for follow-up written notification within five days.
 - d. If necessary, procedures to prevent adverse impact from accidental spills, including inspection and maintenance of storage areas, handling and transfer of materials, loading and unloading operations, control of plant site run-off, worker training, building of containment structures or equipment, measures for containing toxic organic pollutants (including solvents), and/or measures and equipment necessary for emergency response.
5. Pretreatment Report

Each Pretreatment Program Permittee shall provide to the Department an annual report that briefly describes its program activities during the previous calendar year. This report shall be submitted no later than May 1 of each year to:

Washington Department of Ecology,
Eastern Regional Office,
4601 North Monroe Street,
Spokane, WA 99205-1295.

The report shall include the requirements listed in 40 CFR 403.12(h)(i)(1)-(5) and the following additional information:

- a. An updated nondomestic inventory (Industrial User Survey).
- b. Results of wastewater sampling at the treatment plant **as specified in S6.B**. The Permittee shall calculate removal rates for each pollutant and evaluate the adequacy of the existing local limitations in Section 8.03A.0204 of Ordinance 08.03A in prevention of treatment plant interference, pass through of pollutants that could affect receiving water quality, and sludge contamination.
- c. Status of program implementation, including:
 - (1) Any substantial modifications to the pretreatment program as originally approved by the Department, including staffing and funding levels.
 - (2) Any interference, upset, or permit violations experienced at the POTW that are directly attributable to wastes from industrial users.
 - (3) Listing of industrial users inspected and/or monitored, and a summary of the results.
 - (4) Listing of industrial users scheduled for inspection and/or monitoring for the next year, and expected frequencies.
 - (5) Listing of industrial users notified of promulgated pretreatment standards and/or local standards. Indicate which industrial users are on compliance schedules and the final date of compliance for each.
 - (6) Listing of industrial users issued industrial waste discharge permits.
 - (7) Planned changes in the pretreatment program implementation plan. (See subsection S6.A.1)
- d. Status of compliance activities, including:
 - (1) Listing of industrial users that failed to submit baseline monitoring reports or any other reports required under 40 CFR 403.12 and in accordance with the Permittee's current pretreatment program.

- (2) Listing of industrial users that were at any time during the reporting period not complying with federal, state, or local pretreatment standards or with applicable compliance schedules for achieving those standards, and the duration of such non-compliance.
- (3) Summary of enforcement activities and other corrective actions taken or planned against non-complying industrial users. The Permittee shall supply to the Department a copy of the public notice of facilities that were in significant noncompliance.

e. Local Limits updates and any updates specified in S6.C and S6.D.

S6.B. Monitoring Requirements

The Permittee must:

1. Monitor its influent, effluent, and sludge for the priority pollutants identified in Tables II and III of Appendix D of 40 CFR Part 122 as amended, any compounds identified because of Condition S6.B.4, and any other pollutants expected from non-domestic sources using U.S. EPA-approved procedures for collection, preservation, storage, and analysis. Section S2 (Monitoring Requirements) in a few instances requires a more sensitive quantitation or reporting limit than appendix A. When required the requirements of S2 are to control monitoring and reporting requirements.
2. Test influent, effluent, and sludge samples for the priority pollutant metals (Table III, 40 CFR 122, Appendix D) on a quarterly basis throughout the term of this permit.
3. Test influent, effluent, and sludge samples for the organic priority pollutants (Table II, 40 CFR 122, Appendix D) on an annual basis. The Permittee may use the data collected for application purposes using Appendix A test methods to meet this requirement.
4. Sample POTW influent and effluent on a day when industrial discharges are occurring at normal-to-maximum levels.
5. Obtain 24-hour composite samples for the analysis of acid and base/neutral extractable compounds and metals.
6. Collect grab samples at equal intervals for a total of four grab samples per day for the analysis of volatile organic compounds. The laboratory may run a single analysis for volatile pollutants (Method 624) for each monitoring day by compositing equal volumes of each grab sample directly in the GC purge and trap apparatus in the laboratory, with no less than 1 ml of each grab included in the composite.
7. Ensure that all reported test data for metals represents the total amount of the constituents present in all phases, whether solid, suspended, or dissolved elemental or combined, including all oxidation states unless otherwise indicated.

8. Handle, prepare, and analyze all wastewater samples taken for GC/MS analysis in accordance with the U.S. EPA Methods 624 and 625 (October 26, 1984).
9. Collect a sludge sample concurrently with a wastewater sample as a single grab of residual sludge. Sludge organic priority pollutant sampling and analysis must conform to U.S. EPA Methods 624 and 625 unless the Permittee requests an alternate method and Ecology has approved. Sludge metals priority pollutant sampling and analysis must conform to U.S. EPA SW 846 6000/7000 Series Methods unless the Permittee requests an alternate method and Ecology has approved.
10. Collect grab samples for cyanide, phenols, and oils. Measure hexane soluble oils (or equivalent) only in the influent and effluent.
11. Make a reasonable attempt to indentify all other substances and quantify all pollutants shown to be present by gas chromatograph/mass spectrometer (GC/MS) analysis per 40 CFR 136, Appendix A, Methods 624 and 625, in addition to quantifying pH, oil and grease, and all priority pollutants.

The Permittee should attempt to make determinations of pollutants for each fraction, which produces identifiable spectra on total ion plots (reconstructed gas chromatograms). The Permittee should attempt to make determinations from all peaks with responses 5% or greater than the nearest internal standard. The 5% value is based on internal standard concentrations of 30 µg/l, and must be adjusted downward if higher internal standard concentrations are used or adjusted upward if lower internal standard concentrations are used. The Permittee may express results for non-substituted aliphatic compounds as total hydrocarbon content.

12. Use a laboratory whose computer data processing programs are capable of comparing sample mass spectra to a computerized library of mass spectra, with visual confirmation by an experienced analyst.
13. Conduct additional sampling and appropriate testing to determine concentration and variability, and to evaluate trends for all detected substances determined to be pollutants.

S6.C. Reporting of Monitoring Results

The Permittee shall include a summary of monitoring results in the Annual Pretreatment Report.

S6.D. Local Limit Update

By August 15, 2013, the Permittee shall, in consultation with the Department, reevaluate and update their local limits in order to prevent pass through or interference. The Permittee should refer to EPA's Local Limits Development Guidance dated July 2004.

The Permittee should also consider Total Toxic Organics, Phosphorus, metals, and conventional pollutants in their revise local limits. Upon determination by the Department that any pollutant present causes pass through or interference, or exceeds established sludge standards, the Permittee shall establish new local limits or revise existing local limits as required by 40 CFR 403.5. In addition, the Department may require revision or establishment of local limits for any pollutant discharged from the POTW that has a reasonable potential to exceed the Water Quality Standards, Sediment Standards, or established effluent limits, or causes whole effluent toxicity. The determination by the Department shall be in the form of an Administrative Order.

The Department may modify this permit to incorporate additional requirements relating to the establishment and enforcement of local limits for pollutants of concern. Any permit modification is subject to formal due process procedures pursuant to state and federal law and regulation.

S6.E. Mercury Abatement and Control Plan

The Permittee shall revise and submit to the Department of Ecology an updated Mercury abatement and control plan. The plan shall be expanded as the Department of Ecology develops and releases further guidance. The Mercury Control Plan shall be submitted to the Department of Ecology **by February 15, 2016**.

Mercury Plan development guidance can be found at the following locations:

Ecology Mercury Website <http://www.ecy.wa.gov/mercury/>
For Dental Plan Guidance <http://www.ecy.wa.gov/dentalbmeps/index.html>
Reduction Plan Guidance <http://www.ecy.wa.gov/biblio/0303001.html>

S7. Solid wastes

S7.A. Solid waste handling

The Permittee must handle and dispose of all solid waste material in such a manner as to prevent its entry into state ground or surface water.

S7.B. Leachate

The Permittee must not allow leachate from its solid waste material to enter state waters without providing all known, available, and reasonable methods of treatment, nor allow such leachate to cause violations of the State Surface Water Quality Standards, Chapter 173-201A WAC, or the State Ground Water Quality Standards, Chapter 173-200 WAC.

S8. Application for permit renewal or modification for facility changes

The Permittee must submit an application for renewal of this permit **by October 1, 2015**. The Permittee must submit a paper copy and an electronic copy (preferably as a PDF).

The Permittee must also submit a new application or supplement at least one hundred eighty (180) days prior to commencement of discharges, resulting from the activities listed below, which may result in permit violations. These activities include any facility expansions, production increases, or other planned changes, such as process modifications, in the permitted facility.

S9. Receiving Water Study

The Permittee must collect information on the effluent and receiving water, upstream and downstream to determine if the effluent has impacted beneficial uses or water quality standards.

S9.A Temperature Monitoring

For temperature monitoring the Permittee must:

1. Submit a Sampling Quality Assurance Project Plan for Ecology review and approval by March 1, 2012. The Permittee must submit a paper copy and an electronic copy (preferably as a PDF).
2. Conduct all sampling and analysis in accordance with the guidelines given in *Guidelines for Preparing Quality Assurance Project Plans for Environmental Studies*, Ecology Publication 04-03-030 (<http://www.ecy.wa.gov/pubs/0403030.pdf>). A model Quality Assurance Plan specific for temperature is available at <http://www.ecy.wa.gov/programs/wq/permits/guidance.html>.
3. Measure temperature in the ambient water upstream and downstream of the outfall during the months of June through October of each year.
4. Use micro-recording temperature devices known as thermistors to measure temperature. Ecology's Quality Assurance Project Plan Development Tool (*Continuous Temperature Sampling Protocols for the Environmental Monitoring and Trends*) contains protocols for continuous temperature sampling. This document is available online at <http://www.ecy.wa.gov/programs/eap/qa/docs/QAPPtool/Mod6%20Ecology%20SOPs/Protocols/ContinuousTemperatureSampling.pdf>.
5. Calibrate the devices as specified in this document unless using recording devices certified by the manufacturer. Ecology does not require manufacture-specific equipment as given in this document; however, if the Permittee wishes to use measuring devices from another company, it must demonstrate the accuracy is equivalent.
6. Set the recording devices to record at one-half-hour intervals.
7. Report temperature monitoring data as: daily maximum, seven-day running average of the daily maximums, and the monthly maximum of the seven-day running average. The model Quality Assurance Plan shows an example of these calculations.

8. Use the temperature device manufacturer's software to generate (export) an Excel text file of the temperature data for each June-October period. Send this file and placement logs to Ecology by December 31 of the monitoring year. The placement logs should include the following information for both thermistor deployment and retrieval: date, time, temperature device manufacturer ID, location, depth, whether it measured air or water temperature, and any other details that may explain data anomalies. An example of a placement log is shown in Appendix F of the document referenced in item D above.
9. Submit the temperature data for the season (June through October) at end of the year with the placement logs.

S9.B Conventional Parameters

For other conventional parameters listed in S2, the permittee must:

1. Submit a Sampling Quality Assurance Project Plan for Ecology review and approval **by March 1, 2012**. The Permittee must submit a paper copy and an electronic copy (preferably as a PDF).
2. Conduct all sampling and analysis in accordance with the guidelines given in *Guidelines for Preparing Quality Assurance Project Plans for Environmental Studies*, Ecology Publication 04-03-030 (<http://www.ecy.wa.gov/pubs/0403030.pdf>).

Follow the clean sampling techniques (Method 1669: *Sampling Ambient Water for Trace Metals at EPA Water Quality Criteria Levels*, EPA Publication No. 821-R-95-034, April 1995).

3. For conventional parameters, collect at least ten receiving water samples and analyze the samples in the 2nd and 4th year of the permit for:
Hardness, alkalinity, pH, NH₃-N, NO₂ + NO₃, dissolved oxygen, total phosphorus, and total reactive phosphorus.
4. In addition, analyze the samples for both the total and dissolved fractions for the following metals in the 2nd and 4th year of the permit:
zinc, lead, and cadmium.
5. Conduct all chemical analysis using the methods and the detection levels identified in Appendix A.
6. Submit the results of the study to Ecology by March 15 of the following year. The Permittee must submit a paper copy and an electronic copy (preferably as a PDF).
7. The Receiving Water Data Report must also include electronic copies of the chemical data formatted according to Ecology's Environmental Information (EIM) System templates available at the link below.
<http://www.ecy.wa.gov/eim/MyEIM.htm>

Any subsequent sampling and analysis must also meet these requirements. The Permittee may conduct a cooperative receiving water study with other NPDES Permittees discharging in the same vicinity.

S9.C. Toxic Parameters

For toxic parameters listed in S2, the Permittee must:

Conduct analyses of the wastewater facility's influent and effluent samples for PCBs, 2,3,7,8 TCDDs and PBDE at the locations and at the minimum frequencies listed in the schedule in and collected in accordance with protocols, monitoring requirements and QA/QC procedures specified in the Ecology approve quality assurance plan (QAPP). The QAPP shall include the uses of estimated values for source identification and prioritization. The QAPP shall be submitted for Ecology approval **by March 15, 2012.**

A report of the results with attached laboratory data sheets shall be submitted to Ecology (The Annual Toxics Management Report, see S12).

S10. Acute toxicity

S10.A. Effluent characterization

The Permittee must:

1. Conduct quarterly acute toxicity testing on the final effluent for one year. Testing must begin **by March 30, 2014.** Quarters mean January through March, April through June, July through September, and October through December.
2. Submit 4 quarterly reports to Ecology within 45 days of each sampling event preferably, but no later than 30 days after the end of each quarter.
 - a. October 30
 - b. January 30
 - c. April 30
 - d. July 30.

Further instructions on testing conditions and test report content are in Section F below.

3. Use a dilution series consisting of a minimum of five concentrations and a control. The five concentrations should include the ACEC of 56.5 % effluent.
4. Conduct the following two acute toxicity tests on each sample:

Acute Toxicity Tests	Species	Method
Fathead minnow 96-hour static-renewal test	<i>Pimephales promelas</i>	EPA-821-R-02-012
Daphnid 48-hour static test	<i>Ceriodaphnia dubia</i> , <i>Daphnia pulex</i> , or <i>Daphnia magna</i>	EPA-821-R-02-012

5. The effluent limit for acute toxicity listed in Section B below applies if after one year of effluent characterization:

- The median survival of any species in 100% effluent is below 80%.
- Any one test of any species exhibits less than 65% survival in 100% effluent.

If the limit applies, then the Permittee must immediately follow the instructions in Sections B, C, D, E, and F.

S10.B. Effluent limit for acute toxicity

The effluent limit for acute toxicity is, **no acute toxicity** detected in a test concentration representing the acute critical effluent concentration (ACEC).

The ACEC means the maximum concentration of effluent during critical conditions at the boundary of the acute mixing zone, defined in Section S1.D of this permit. The ACEC equals 56.5 % effluent.

S10.C. Compliance with the effluent limit for acute toxicity

Compliance with the effluent limit for acute toxicity means the results of the testing specified in Section D show no statistically significant difference in survival between the control and the ACEC.

If the test results show a statistically significant difference in survival between the control and the ACEC, the test does not comply with the effluent limit for acute toxicity. The Permittee must then immediately conduct the additional testing described in Section E. The Permittee will comply with the requirements of this section by meeting the requirements of Section E.

The Permittee must determine the statistical significance by conducting a hypothesis test at the 0.05 level of significance (Appendix H, EPA/600/4-89/001). If the difference in survival between the control and the ACEC is less than 10%, the Permittee must conduct the hypothesis test at the 0.01 level of significance.

S10.D. Compliance testing for acute toxicity

The Permittee must:

1. Perform the acute toxicity tests with 100% effluent, the ACEC, and a control, or with a full dilution series.
2. Conduct quarterly acute toxicity testing on the final effluent if characterization determines that the effluent limit for acute toxicity is applicable. Testing must begin **by April 30, 2014**. Quarters mean January through March, April through June, July through September, and October through December.
3. Submit 4 quarterly reports to Ecology within 45 days of each sampling event preferably but no later than 30 days after the end of each quarter. Further instructions on testing conditions and test report content are in Section F below.
4. The Permittee must perform compliance tests using each of the species and protocols listed below on a rotating basis:

Acute Toxicity Tests	Species	Method
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Acute Toxicity Tests	Species	Method
Fathead minnow 96-hour static-renewal test	<i>Pimephales promelas</i>	EPA-821-R-02-012
Daphnid 48-hour static test	<i>Ceriodaphnia dubia</i> , <i>Daphnia pulex</i> , or <i>Daphnia magna</i>	EPA-821-R-02-012

S10.E. Response to non-compliance with the effluent limit for acute toxicity

If a toxicity test conducted under Section D determines a statistically significant difference in response between the ACEC and the control, using the statistical test described in Section C, the Permittee must begin additional testing within one week from the time of receiving the test results. The Permittee must:

1. Test at least five effluent concentrations and a control to determine appropriate point estimates. One of these effluent concentrations must equal the ACEC. The results of the test at the ACEC will determine compliance with the effluent limit for acute toxicity as described in Section C.
2. Return to the original monitoring frequency in Section D after completion of the additional compliance monitoring.

Anomalous test results: If a toxicity test conducted under Section D indicates non-compliance with the acute toxicity limit and the Permittee believes that the test result is anomalous, the Permittee may notify Ecology that the compliance test result may be anomalous. The Permittee may take one additional sample for toxicity testing and wait for notification from Ecology before completing the additional testing. The Permittee must submit the notification with the report of the compliance test result and identify the reason for considering the compliance test result to be anomalous.

If Ecology determines that the test result was not anomalous, the Permittee must complete all of the additional monitoring required in this section. Or,

If the one additional sample fails to comply with the effluent limit for acute toxicity, then the Permittee must complete all of the additional monitoring required in this section. Or,

If Ecology determines that the test result was anomalous, the one additional test result will replace the anomalous test result.

If all of the additional testing in this section complies with the permit limit, the Permittee must submit a report to Ecology on possible causes and preventive measures for the transient toxicity event, which triggered the additional compliance monitoring. This report must include a search of all pertinent and recent facility records, including:

- Operating records
- Monitoring results
- Inspection records

- Spill reports
- Weather records
- Pretreatment records, etc.

If the additional testing in this section shows another violation of the acute toxicity limit, the Permittee must submit a Toxicity Identification/Reduction Evaluation (TI/RE) plan to Ecology within sixty (60) days after the sample date (WAC 173-205-100(2)).

S10.F. Sampling and reporting requirements

1. The Permittee must submit all reports for toxicity testing in accordance with the most recent version of Ecology Publication No. WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria*. Reports must contain bench sheets and reference toxicant results for test methods. If the lab provides the toxicity test data in electronic format for entry into Ecology's database, then the Permittee must send the data to Ecology along with the test report, bench sheets, and reference toxicant results.
2. The Permittee must collect 24-hour composite effluent samples for toxicity testing. The Permittee must cool the samples to 0 - 6 degrees Celsius during collection and send them to the lab immediately upon completion. The lab must begin the toxicity testing as soon as possible but no later than 36 hours after sampling was completed.
3. The laboratory must conduct water quality measurements on all samples and test solutions for toxicity testing, as specified in the most recent version of Ecology Publication No. WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria*.
4. All toxicity tests must meet quality assurance criteria and test conditions specified in the most recent versions of the EPA methods listed in Subsection C and the Ecology Publication No. WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria*. If Ecology determines any test results to be invalid or anomalous, the Permittee must repeat the testing with freshly collected effluent.
5. The laboratory must use control water and dilution water meeting the requirements of the EPA methods listed in Section A or pristine natural water of sufficient quality for good control performance.
6. The Permittee must conduct whole effluent toxicity tests on an unmodified sample of final effluent.

S11. Chronic toxicity

S11.A. Effluent characterization

The Permittee must:

1. Conduct quarterly chronic toxicity testing on the final effluent for one year. Testing must begin **by March 30, 2014**. Quarters mean January through March, April through June, July through September, and October through December.
2. Submit 4 quarterly reports to Ecology within 45 days of each sampling event preferably but no later than 30 days after the end of the each quarter:
 - a. October 30
 - b. January 30
 - c. April 30
 - d. July 30.

Further instructions on testing conditions and test report content are in Section F below.

3. Conduct chronic toxicity testing during effluent characterization on a series of at least five concentrations of effluent and a control. This series of dilutions must include the acute critical effluent concentration (ACEC). The ACEC equals 56.5 % effluent. The series of dilutions should also contain the CCEC of 8.4 % effluent.
4. Conduct the following three chronic toxicity tests on each sample:

Freshwater Chronic Test	Species	Method
Fathead minnow survival and growth	<i>Pimephales promelas</i>	EPA-821-R-02-013
Water flea survival and reproduction	<i>Ceriodaphnia dubia</i>	EPA-821-R-02-013
Alga	<i>Pseudokirchneriella subcapitata</i> (formerly <i>Selenastrum capricornutum</i>)	EPA-821-R-02-013

5. The effluent limit for chronic toxicity listed in Section B below applies if after one year of effluent characterization any test shows a significant difference between the control and the ACEC at the 0.05 level of significance using hypothesis testing (Appendix H, EPA/600/4-89/001).
 - If the limit applies, then the Permittee must immediately follow the instructions in Sections B, C, D, E, and F.

S11.B. Effluent limit for chronic toxicity

The effluent limit for chronic toxicity is: no toxicity detected in a test concentration representing the chronic critical effluent concentration (CCEC).

The CCEC means the maximum concentration of effluent during critical conditions at the boundary of the mixing zone, defined in Section S1.D of this permit. The CCEC equals 8.4 % effluent.

S11.C. Compliance with the effluent limit for chronic toxicity

Compliance with the effluent limit for chronic toxicity means the results of the testing specified in Subsection D. show no statistically significant difference in response between the control and the CCEC.

If the test results show a statistically significant difference in response between the control and the CCEC, the test does not comply with the effluent limit for chronic toxicity. The Permittee must then immediately conduct the additional testing described in Subsection E. The Permittee will comply with the requirements of this section by meeting the requirements of Subsection E.

The Permittee must determine the statistical significance by conducting a hypothesis test at the 0.05 level of significance (Appendix H, EPA/600/4-89/001). If the difference in response between the control and the CCEC is less than 20%, the Permittee must conduct the hypothesis test at the 0.01 level of significance.

Ecology will reevaluate the need for the chronic toxicity limit in future permits. Therefore, the Permittee must also conduct this same hypothesis test (Appendix H, EPA/600/4-89/001) to determine whether a statistically significant difference in response exists between the acute critical effluent concentration (ACEC) and the control.

S11.D. Compliance testing for chronic toxicity

The Permittee must:

1. Perform the chronic toxicity tests using the CCEC, the ACEC, and a control, or with a full dilution series.
2. Conduct quarterly chronic toxicity testing on the final effluent if characterization determines that the effluent limit for chronic toxicity is applicable. Testing must begin by **April 30, 2014**. Quarters mean January through March, April through June, July through September, and October through December.
3. Submit 4 quarterly reports to Ecology within 45 days of each sampling event preferably but no later than 30 days after the end of the each quarter:
 - a. October 30
 - b. January 30
 - c. April 30
 - d. July 30.

This written report must include the results of hypothesis testing conducted as described in Subsection C. using both the ACEC and CCEC versus the control. Further instructions on testing conditions and test report content are in Section F below.

4. Perform compliance tests using the following species on a rotating basis and the most recent version of the following protocols:

Freshwater Chronic Test	Species	Method
Fathead minnow survival and growth	<i>Pimephales promelas</i>	EPA-821-R-02-013
Water flea survival and reproduction	<i>Ceriodaphnia dubia</i>	EPA-821-R-02-013
Alga	<i>Pseudokirchneriella subcapitata</i> (formerly <i>Selenastrum capricornutum</i>)	EPA-821-R-02-013

S11.E. Response to non-compliance with the effluent limit for chronic toxicity

If a toxicity test conducted under Subsection D determines a statistically significant difference in response between the CCEC and the control using the statistical test described in Subsection C, the Permittee must begin additional testing within one week from the time of receiving the test results. The Permittee must:

1. Conduct additional testing each month for three consecutive months using the same test and species as the failed compliance test.
2. Use a series of at least five effluent concentrations and a control to determine appropriate point estimates. One of these effluent concentrations must equal the CCEC. The results of the test at the CCEC will determine compliance with the effluent limit for chronic toxicity as described in Subsection B.
3. Return to the original monitoring frequency in Subsection C after completion of the additional compliance monitoring.

Anomalous test results: If a toxicity test conducted under Subsection D indicates noncompliance with the chronic toxicity limit and the Permittee believes that the test result is anomalous, the Permittee may notify Ecology that the compliance test result may be anomalous. The Permittee may take one additional sample for toxicity testing and wait for notification from Ecology before completing the additional testing. The Permittee must submit the notification with the report of the compliance test result and identify the reason for considering the compliance test result to be anomalous.

If Ecology determines that the test result was not anomalous, the Permittee must complete all of the additional monitoring required in this section. Or,

If the one additional sample fails to comply with the effluent limit for chronic toxicity, then the Permittee must complete all of the additional monitoring required in this section. Or,

If Ecology determines that the test result was anomalous, the one additional test result will replace the anomalous test result.

If all of the additional testing required by this section complies with the permit limit, the Permittee must submit a report to Ecology on possible causes and preventive measures for the transient toxicity event, which triggered the additional compliance monitoring. This report must include a search of all pertinent and recent facility records, including:

- Operating records
- Monitoring results
- Inspection records
- Spill reports
- Weather records
- Pretreatment records, etc.

If the additional testing required by this section shows another violation of the chronic toxicity limit, the Permittee must submit a Toxicity Identification/Reduction Evaluation (TI/RE) plan to Ecology within 60 days after the sample date (WAC 173-205-100(2)).

S11.F. Sampling and reporting requirements

1. The Permittee must submit all reports for toxicity testing in accordance with the most recent version of Ecology Publication No. WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria*. Reports must contain bench sheets and reference toxicant results for test methods. If the lab provides the toxicity test data in electronic format for entry into Ecology's database, then the Permittee must send the data to Ecology along with the test report, bench sheets, and reference toxicant results.
2. The Permittee must collect 24-hour composite effluent samples for toxicity testing. The Permittee must cool the samples to 0 - 6 degrees Celsius during collection and send them to the lab immediately upon completion.

The lab must begin the toxicity testing as soon as possible but no later than 36 hours after sampling was completed.
3. The laboratory must conduct water quality measurements on all samples and test solutions for toxicity testing, as specified in the most recent version of Ecology Publication No. WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria*.
4. All toxicity tests must meet quality assurance criteria and test conditions specified in the most recent versions of the EPA methods listed in Section C. and the Ecology Publication no. WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria*. If Ecology determines any test results to be invalid or anomalous, the Permittee must repeat the testing with freshly collected effluent.
5. The laboratory must use control water and dilution water meeting the requirements of the EPA methods listed in Subsection C. or pristine natural water of sufficient quality for good control performance.

6. The Permittee must conduct whole effluent toxicity tests on an unmodified sample of final effluent.
7. The Permittee may choose to conduct a full dilution series test during compliance testing in order to determine dose response. In this case, the series must have a minimum of five effluent concentrations and a control. The series of concentrations must include the CCEC and the ACEC. The CCEC and the ACEC may either substitute for the effluent concentrations that are closest to them in the dilution series or be extra effluent concentrations. The CCEC equals 8.4 % effluent. The ACEC equals 56.5 % effluent.
8. All whole effluent toxicity tests that involve hypothesis testing must comply with the chronic statistical power standard of 39% as defined in WAC 173-205-020. If the test does not meet the power standard, the Permittee must repeat the test on a fresh sample with an increased number of replicates to increase the power.

S12. Toxics Source Control Action Plan

- A. An Annual Toxics Management Report shall be prepared by the County and submitted to Ecology on an annual basis for review and evaluation on the toxics management effort. The Report shall be submitted **by April 15**. Activities planned for toxics reduction in the subsequent year of operation shall be jointly reviewed and agreed upon. The toxics of specific concern for this report are PCBs; 2,3,7,8 TCDDs and PBDE.

The Toxics Management Report shall include the toxics monitoring results with attached laboratory data sheets shall be submitted to Ecology (ERO Water Quality Program permit manager and the urban waters staff) annually.

After each year of sampling for PCBs; 2,3,7,8 TCDDs and PBDE; the Permittee and Ecology (ERO Water Quality Program Permit Manager and the urban waters staff) will review the data, including pattern analysis of homologs, detection limits, QA/QC procedures and a draft action plan listing identified sources, potential sources suggested by data analysis and future source identification activities. Annually the Permittee and Ecology will confer and revise the locations and frequency of the raw sewage sampling in the collection system for these pollutants.

The Toxics Management Plan must address source control and elimination of PCBs from:

- Contaminated soils and sediments,
- Storm water entering the wastewater collection system,
- Industrial and commercial sources,

As an element of the pretreatment program the City and County will expand the scope of their inspections and monitoring to include PCBs and other toxics as appropriate. The PCB monitoring must follow an Ecology approved QAPP.

A model QAPP has been published by Ecology and is available at <http://www.ecy.wa.gov/biblio/eap.html>.

The action is to address of eliminating active sources such as,

- Older mechanical machinery
- Older electrical equipment and components,
- Construction material content such as paints and caulking
- Commercial materials such as ink and dyes,

The Permittee is to consider changes in procurement practices and ordinances control and minimize toxics, including preferential use of PCB free substitutes for those products containing PCBs below the regulated level of 5 ppm, in sources such as:

- Construction material content such as paints and caulking
- Commercial materials such as ink and dyes,
- Soaps and cleaners,

The Permittee (individually or in collaboration with other dischargers) must also prepare public media educating the public about the difference between products free of PCBs and those labeled non-PCB but which contain PCBs below the TOSCA regulatory threshold of 5 ppm.

The effluent monitoring results shall be compiled and analyzed by Ecology for the purpose of establishing a performance based PCB effluent limitation for the following permit cycle.

The goals of the Toxics Management Plan are:

- To reduce toxicant loadings, including PCBs, to the Spokane River to the maximum extent practicable realizing statistically significant reductions in the influent concentration of toxicants to the SCRWRF over the next 10 years.
- Reduce PCBs in the effluent to the maximum extent practicable so that in time the effluent does not contribute to PCBs in the Spokane River exceeding applicable water quality standards.

S13. Regional Toxics Task Force

The Permittee shall participate in a cooperative effort to create a Regional Toxics Task Force and participate in the functions of the Task Force. The Task Force membership should include the NPDES Permittees in the Spokane River basin, conservation and environmental interests, the Spokane Tribe, Spokane Regional Health District, Ecology, and other appropriate interests. The goal of the Task Force will be to develop a comprehensive plan to bring the Spokane River into compliance with applicable water quality standards for PCBs.

To accomplish that goal it is anticipated that the Task Force functions will include:

- (1) Identify data gaps and collect necessary data on PCBs and other toxics on the 2008 year 303(d) list for the Spokane River;
- (2) Further analyze the existing and future data to better characterize the amounts, sources, and locations of PCBs and other toxics on the 2008 year 303(d) list for the Spokane River;
- (3) Prepare recommendations for controlling and reducing the sources of listed toxics in the Spokane River;
- (4) Review proposed Toxic Management Plans, Source Management Plans, and BMPs;
- (5) Monitor and assess the effectiveness of toxic reduction measures;
- (6) Identify a mutually agreeable entity to serve as the clearinghouse for data, reports, minutes, and other information gathered or developed by the Task Force and its members. This information shall be made publicly available by means of a website and other appropriate means;

To discharge these functions the Task Force may:

Provide for an independent community technical advisor(s) funded by the permittees, who shall assist in review of data, studies, and control measures, as well as assist in providing technical education information to the public;

By November 30, 2011, the Task Force shall provide Ecology with the details of the organizational structure, specific goals, funding and the governing documents of the Regional Toxics Task Force.

If Ecology determines the Task Force is failing to make measurable progress toward meeting applicable water quality criteria for PCBs, Ecology would be obligated to proceed with development of a TMDL in the Spokane River for PCBs or determine an alternative to ensure water quality standards are met.

GENERAL CONDITIONS

G1. Signatory requirements

1. All applications, reports, or information submitted to Ecology must be signed and certified.
 - a. In the case of corporations, by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:
 - A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions for the corporation, or
 - The manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
 - In the case of a partnership, by a general partner.
 - In the case of sole proprietorship, by the proprietor.
 - In the case of a municipal, state, or other public facility, by either a principal executive officer or ranking elected official.

Applications for permits for domestic wastewater facilities that are either owned or operated by, or under contract to, a public entity shall be submitted by the public entity.

2. All reports required by this permit and other information requested by Ecology must be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:
 - a. The authorization is made in writing by a person described above and submitted to Ecology.
 - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.)

3. Changes to authorization. If an authorization under paragraph B.2, above, is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph B.2, above, must be submitted to Ecology prior to or together with any reports, information, or applications to be signed by an authorized representative.
4. Certification. Any person signing a document under this section must make the following certification:

“I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

G2. Right of inspection and entry

The Permittee must allow an authorized representative of Ecology, upon the presentation of credentials and such other documents as may be required by law:

1. To enter upon the premises where a discharge is located or where any records must be kept under the terms and conditions of this permit.
2. To have access to and copy, at reasonable times and at reasonable cost, any records required to be kept under the terms and conditions of this permit.
3. To inspect, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, methods, or operations regulated or required under this permit.
4. To sample or monitor, at reasonable times, any substances or parameters at any location for purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act.

G3. Permit actions

This permit may be modified, revoked and reissued, or terminated either at the request of any interested person (including the Permittee) or upon Ecology’s initiative. However, the permit may only be modified, revoked and reissued, or terminated for the reasons specified in 40 CFR 122.62, 40 CFR 122.64 or WAC 173-220-150 according to the procedures of 40 CFR 124.5.

1. The following are causes for terminating this permit during its term, or for denying a permit renewal application:
 - a. Violation of any permit term or condition.
 - b. Obtaining a permit by misrepresentation or failure to disclose all relevant facts.

- c. A material change in quantity or type of waste disposal.
 - d. A determination that the permitted activity endangers human health or the environment, or contributes to water quality standards violations and can only be regulated to acceptable levels by permit modification or termination.
 - e. A change in any condition that requires either a temporary or permanent reduction, or elimination of any discharge or sludge use or disposal practice controlled by the permit.
 - f. Nonpayment of fees assessed pursuant to RCW 90.48.465.
 - g. Failure or refusal of the Permittee to allow entry as required in RCW 90.48.090.
2. The following are causes for modification but not revocation and reissuance except when the Permittee requests or agrees:
- a. A material change in the condition of the waters of the state.
 - b. New information not available at the time of permit issuance that would have justified the application of different permit conditions.
 - c. Material and substantial alterations or additions to the permitted facility or activities which occurred after this permit issuance.
 - d. Promulgation of new or amended standards or regulations having a direct bearing upon permit conditions, or requiring permit revision.
 - e. The Permittee has requested a modification based on other rationale meeting the criteria of 40 CFR Part 122.62.
 - f. Ecology has determined that good cause exists for modification of a compliance schedule, and the modification will not violate statutory deadlines.
 - g. Incorporation of an approved local pretreatment program into a municipality's permit.
3. The following are causes for modification or alternatively revocation and reissuance:
- a. When cause exists for termination for reasons listed in A1 through A7 of this section, and Ecology determines that modification or revocation and reissuance is appropriate.
 - b. When Ecology has received notification of a proposed transfer of the permit. A permit may also be modified to reflect a transfer after the effective date of an automatic transfer (General Condition G7) but will not be revoked and reissued after the effective date of the transfer except upon the request of the new Permittee.

G4. Reporting planned changes

The Permittee must, as soon as possible, but no later than sixty (60) days prior to the proposed changes, give notice to Ecology of planned physical alterations or additions to the permitted facility, production increases, or process modification which will result in:

1. The permitted facility being determined to be a new source pursuant to 40 CFR 122.29(b)
2. A significant change in the nature or an increase in quantity of pollutants discharged.
3. A significant change in the Permittee's sludge use or disposal practices. Following such notice, and the submittal of a new application or supplement to the existing application, along with required engineering plans and reports, this permit may be modified, or revoked and reissued pursuant to 40 CFR 122.62(a) to specify and limit any pollutants not previously limited. Until such modification is effective, any new or increased discharge in excess of permit limits or not specifically authorized by this permit constitutes a violation.

G5. Plan review required

Prior to constructing or modifying any wastewater control facilities, an engineering report and detailed plans and specifications must be submitted to Ecology for approval in accordance with chapter 173-240 WAC. Engineering reports, plans, and specifications must be submitted at least one hundred eighty (180) days prior to the planned start of construction unless a shorter time is approved by Ecology. Facilities must be constructed and operated in accordance with the approved plans.

G6. Compliance with other laws and statutes

Nothing in this permit excuses the Permittee from compliance with any applicable federal, state, or local statutes, ordinances, or regulations.

G7. Transfer of this permit

In the event of any change in control or ownership of facilities from which the authorized discharge emanate, the Permittee must notify the succeeding owner or controller of the existence of this permit by letter, a copy of which must be forwarded to Ecology.

1. Transfers by Modification
Except as provided in paragraph (B) below, this permit may be transferred by the Permittee to a new owner or operator only if this permit has been modified or revoked and reissued under 40 CFR 122.62(b)(2), or a minor modification made under 40 CFR 122.63(d), to identify the new Permittee and incorporate such other requirements as may be necessary under the Clean Water Act.
2. Automatic Transfers
This permit may be automatically transferred to a new Permittee if:
 - a. The Permittee notifies Ecology at least thirty (30) days in advance of the proposed transfer date.

- b. The notice includes a written agreement between the existing and new Permittees containing a specific date transfer of permit responsibility, coverage, and liability between them.
- c. Ecology does not notify the existing Permittee and the proposed new Permittee of its intent to modify or revoke and reissue this permit. A modification under this subparagraph may also be minor modification under 40 CFR 122.63. If this notice is not received, the transfer is effective on the date specified in the written agreement.

G8. Reduced production for compliance

The Permittee, in order to maintain compliance with its permit, must control production and/or all discharges upon reduction, loss, failure, or bypass of the treatment facility until the facility is restored or an alternative method of treatment is provided. This requirement applies in the situation where, among other things, the primary source of power of the treatment facility is reduced, lost, or fails.

G9. Removed substances

Collected screenings, grit, solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters must not be resuspended or reintroduced to the final effluent stream for discharge to state waters.

G10. Duty to provide information

The Permittee must submit to Ecology, within a reasonable time, all information which Ecology may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The Permittee must also submit to Ecology upon request, copies of records required to be kept by this permit.

G11. Other requirements of 40 CFR

All other requirements of 40 CFR 122.41 and 122.42 are incorporated in this permit by reference.

G12. Additional monitoring

Ecology may establish specific monitoring requirements in addition to those contained in this permit by administrative order or permit modification.

G13. Payment of fees

The Permittee must submit payment of fees associated with this permit as assessed by Ecology.

G14. Penalties for violating permit conditions

Any person who is found guilty of willfully violating the terms and conditions of this permit is deemed guilty of a crime, and upon conviction thereof must be punished by a fine of up to ten thousand dollars (\$10,000) and costs of prosecution, or by imprisonment in the discretion of the court. Each day upon which a willful violation occurs may be deemed a separate and additional violation.

Any person who violates the terms and conditions of a waste discharge permit may incur, in addition to any other penalty as provided by law, a civil penalty in the amount of up to ten thousand dollars (\$10,000) for every such violation. Each and every such violation is a separate and distinct offense, and in case of a continuing violation, every day's continuance is deemed to be a separate and distinct violation.

G15. Upset

Definition – “Upset” means an exceptional incident in which there is unintentional and temporary non-compliance with technology-based permit effluent limits because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limits if the requirements of the following paragraph are met.

A Permittee who wishes to establish the affirmative defense of upset must demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

1. An upset occurred and that the Permittee can identify the cause(s) of the upset.
2. The permitted facility was being properly operated at the time of the upset.
3. The Permittee submitted notice of the upset as required in Condition S3.E.
4. The Permittee complied with any remedial measures required under S4.C of this permit.

In any enforcement action the Permittee seeking to establish the occurrence of an upset has the burden of proof.

G16. Property rights

This permit does not convey any property rights of any sort, or any exclusive privilege.

G17. Duty to comply

The Permittee must comply with all conditions of this permit. Any permit non-compliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

G18. Toxic pollutants

The Permittee must comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if this permit has not yet been modified to incorporate the requirement.

G19. Penalties for tampering

The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit must, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than two (2) years per violation, or by both. If a conviction of a person is for a violation committed after a first conviction of such person under this condition, punishment must be a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than four (4) years, or by both.

G20. Compliance schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit must be submitted no later than fourteen (14) days following each schedule date.

G21. Contract review

The Permittee must submit to Ecology any proposed contract for the operation of any wastewater treatment facility covered by this permit. The review is to ensure consistency with chapters 90.46 and 90.48 RCW. In the event that Ecology does not comment within a thirty (30)-day period, the Permittee may assume consistency and proceed with the contract.

Appendix A

LIST OF POLLUTANTS WITH ANALYTICAL METHODS, DETECTION LIMITS AND QUANTITATION LEVELS

The Permittee must use the specified analytical methods, detection limits (DLs) and quantitation levels (QLs) in the following table for permit and application required monitoring unless:

- Another permit condition specifies other methods, detection levels, or quantitation levels.
- The method used produces measurable results in the sample and EPA has listed it as an EPA-approved method in 40 CFR Part 136.

If the Permittee uses an alternative method, not specified in the permit and as allowed above, it must report the test method, DL, and QL on the discharge monitoring report or in the required report.

When the permit requires the Permittee to measure the base neutral compounds in the list of priority pollutants, it must measure all of the base neutral pollutants listed in the table below. The list includes EPA required base neutral priority pollutants and several additional polynuclear aromatic hydrocarbons (PAHs). The Water Quality Program added several PAHs to the list of base neutrals below from Ecology's Persistent Bioaccumulative Toxics (PBT) List. It only added those PBT parameters of interest to Appendix A that did not increase the overall cost of analysis unreasonably.

Ecology added this appendix to the permit in order to reduce the number of analytical "non-detects" in permit-required monitoring and to measure effluent concentrations near or below criteria values where possible at a reasonable cost.

CONVENTIONAL PARAMETERS

Pollutant & CAS No. (if available)	Recommended Analytical Protocol	Detection (DL)¹ <i>µg/L unless specified</i>	Quantitation Level (QL)² <i>µg/L unless specified</i>
CONVENTIONAL PARAMETERS			
Biochemical Oxygen Demand (5 day)	SM5210-B		2 mg/L
Chemical Oxygen Demand	SM5220-D		10 mg/L

Pollutant & CAS No. (if available)	Recommended Analytical Protocol	Detection (DL)¹ <i>µg/L unless specified</i>	Quantitation Level (QL)² <i>µg/L unless specified</i>
Total Organic Carbon	SM5310-B/C/D		1 mg/L
Total Suspended Solids	SM2540-D		5 mg/L
Total Ammonia (as N)	SM4500-NH3- GH		20
Flow	Calibrated device		
Dissolved oxygen	SM4500-OC/OG		0.2 mg/L
Temperature (max. 7-day avg.)	Analog recorder or Use micro- recording devices known as thermistors		0.2° C
pH	SM4500-H ⁺ B	N/A	N/A

NONCONVENTIONAL PARAMETERS

Pollutant & CAS No. (if available)	Recommended Analytical Protocol	Detection (DL)¹ <i>µg/L unless specified</i>	Quantitation Level (QL)² <i>µg/L unless specified</i>
NONCONVENTIONAL PARAMETERS			
Total Alkalinity	SM2320-B		5 mg/L as CaCO ₃
Chlorine, Total Residual	SM4500 Cl G		50.0
Color	SM2120 B/C/E		10 color units
Fecal Coliform	SM 9221D/E,9222	N/A	N/A

Pollutant & CAS No. (if available)	Recommended Analytical Protocol	Detection (DL)¹ <i>µg/L unless specified</i>	Quantitation Level (QL)² <i>µg/L unless specified</i>
Fluoride (16984-48-8)	SM4500-F E	25	100
Nitrate-Nitrite (as N)	SM4500-NO3- E/F/H		100
Nitrogen, Total Kjeldahl (as N)	SM4500-NH3- C/E/FG		300
Ortho-Phosphate (PO ₄ as P)	SM4500- PE/PF	3	10
Phosphorus, Total (as P)	SM4500-PE/PF	3	10
Oil and Grease (HEM)	1664A	1,400	5,000
Salinity	SM2520-B		3 PSS
Settleable Solids	SM2540 -F		100
Sulfate (as mg/L SO ₄)	SM4110-B		200
Sulfide (as mg/L S)	SM4500- S ² F/D/E/G		200
Sulfite (as mg/L SO ₃)	SM4500-SO3B		2000
Total Coliform	SM 9221B, 9222B, 9223B	N/A	N/A
Total dissolved solids	SM2540 C		20 mg/L
Total Hardness	SM2340B		200 as CaCO ₃
Aluminum, Total (7429-90-5)	200.8	2.0	10
Barium Total (7440-39-3)	200.8	0.5	2.0
BTEX (benzene +toluene + ethylbenzene + m,o,p xylenes)	EPA SW 846 8021/8260	1	2
Boron Total (7440-42-8)	200.8	2.0	10.0

Pollutant & CAS No. (if available)	Recommended Analytical Protocol	Detection (DL)¹ <i>µg/L unless specified</i>	Quantitation Level (QL)² <i>µg/L unless specified</i>
Cobalt, Total (7440-48-4)	200.8	0.05	0.25
Iron, Total (7439-89-6)	200.7	12.5	50
Magnesium, Total (7439-95-4)	200.7	10	50
Molybdenum, Total (7439-98-7)	200.8	0.1	0.5
Manganese, Total (7439-96-5)	200.8	0.1	0.5
NWTPH Dx	Ecology NWTPH Dx	250	250
NWTPH Gx	Ecology NWTPH Gx	250	250
Tin, Total (7440-31-5)	200.8	0.3	1.5
Titanium, Total (7440-32-6)	200.8	0.5	2.5

PRIORITY POLLUTANTS

Pollutant & CAS No. (if available)	Recommended Analytical Protocol	Detection (DL)¹ <i>µg/L unless specified</i>	Quantitation Level (QL)² <i>µg/L unless specified</i>
METALS, CYANIDE & TOTAL PHENOLS			
Antimony, Total (7440-36-0)	200.8	0.3	1.0
Arsenic, Total (7440-38-2)	200.8	0.1	0.5
Beryllium, Total (7440-41-7)	200.8	0.1	0.5
Cadmium, Total (7440-43-9)	200.8	0.05	0.25

Pollutant & CAS No. (if available)	Recommended Analytical Protocol	Detection (DL)¹ <i>µg/L unless specified</i>	Quantitation Level (QL)² <i>µg/L unless specified</i>
METALS, CYANIDE & TOTAL PHENOLS			
Chromium (hex) dissolved (18540-29-9)	SM3500-Cr EC	0.3	1.2
Chromium, Total (7440-47-3)	200.8	0.2	1.0
Copper, Total (7440-50-8)	200.8	0.4	2.0
Lead, Total (7439-92-1)	200.8	0.1	0.5
Mercury, Total (7439-97-6)	1631E	0.0002	0.0005
Nickel, Total (7440-02-0)	200.8	0.1	0.5
Selenium, Total (7782-49-2)	200.8	1.0	1.0
Silver, Total (7440-22-4)	200.8	0.04	0.2
Thallium, Total (7440-28-0)	200.8	0.09	0.36
Zinc, Total (7440-66-6)	200.8	0.5	2.5
Cyanide, Total (57-12-5)	335.4	5	10
Cyanide, Weak Acid Dissociable	SM4500-CN I	5	10
Cyanide, Free Amenable to Chlorination (Available Cyanide)	SM4500-CN G	5	10
Phenols, Total	EPA 420.1		50

Pollutant & CAS No. (if available)	Recommended Analytical Protocol	Detection (DL)¹ <i>µg/L unless specified</i>	Quantitation Level (QL)² <i>µg/L unless specified</i>
ACID COMPOUNDS			
2-Chlorophenol (95-57-8)	625	1.0	2.0
2,4-Dichlorophenol (120-83-2)	625	0.5	1.0
2,4-Dimethylphenol (105-67-9)	625	0.5	1.0
4,6-dinitro-o-cresol (534-52-1) (2-methyl-4,6,-dinitrophenol)	625/1625B	1.0	2.0
2,4 dinitrophenol (51-28-5)	625	1.0	2.0
2-Nitrophenol (88-75-5)	625	0.5	1.0
4-nitrophenol (100-02-7)	625	0.5	1.0
Parachlorometa cresol (59-50-7) (4-chloro-3-methylphenol)	625	1.0	2.0
Pentachlorophenol (87-86-5)	625	0.5	1.0
Phenol (108-95-2)	625	2.0	4.0
2,4,6-Trichlorophenol (88-06-2)	625	2.0	4.0

PRIORITY POLLUTANTS (continued)

Pollutant & CAS No. (if available)	Recommended Analytical Protocol	Detection (DL)¹ <i>µg/L unless specified</i>	Quantitation Level (QL)² <i>µg/L unless specified</i>
VOLATILE COMPOUNDS			
Acrolein (107-02-8)	624	5	10

Pollutant & CAS No. (if available)	Recommended Analytical Protocol	Detection (DL) ¹ <i>µg/L unless specified</i>	Quantitation Level (QL) ² <i>µg/L unless specified</i>
VOLATILE COMPOUNDS			
Acrylonitrile (107-13-1)	624	1.0	2.0
Benzene (71-43-2)	624	1.0	2.0
Bromoform (75-25-2)	624	1.0	2.0
Carbon tetrachloride (56-23-5)	624/601 or SM6230B	1.0	2.0
Chlorobenzene (108-90-7)	624	1.0	2.0
Chloroethane (75-00-3)	624/601	1.0	2.0
2-Chloroethylvinyl Ether (110-75-8)	624	1.0	2.0
Chloroform (67-66-3)	624 or SM6210B	1.0	2.0
Dibromochloromethane (124-48-1)	624	1.0	2.0
1,2-Dichlorobenzene (95-50-1)	624	1.9	7.6
1,3-Dichlorobenzene (541-73-1)	624	1.9	7.6
1,4-Dichlorobenzene (106-46-7)	624	4.4	17.6
Dichlorobromomethane (75-27-4)	624	1.0	2.0
1,1-Dichloroethane (75-34-3)	624	1.0	2.0
1,2-Dichloroethane (107-06-2)	624	1.0	2.0
1,1-Dichloroethylene (75-35-4)	624	1.0	2.0
1,2-Dichloropropane (78-87-5)	624	1.0	2.0
1,3-dichloropropene (mixed isomers) (1,2-dichloropropylene) (542-75-	624	1.0	2.0

Pollutant & CAS No. (if available)	Recommended Analytical Protocol	Detection (DL) ¹ <i>µg/L unless specified</i>	Quantitation Level (QL) ² <i>µg/L unless specified</i>
VOLATILE COMPOUNDS			
6) ³			
Ethylbenzene (100-41-4)	624	1.0	2.0
Methyl bromide (74-83-9) (Bromomethane)	624/601	5.0	10.0
Methyl chloride (74-87-3) (Chloromethane)	624	1.0	2.0
Methylene chloride (75-09-2)	624	5.0	10.0
1,1,2,2-Tetrachloroethane (79-34-5)	624	1.9	2.0
Tetrachloroethylene (127-18-4)	624	1.0	2.0
Toluene (108-88-3)	624	1.0	2.0
1,2-Trans-Dichloroethylene (156-60-5) (Ethylene dichloride)	624	1.0	2.0
1,1,1-Trichloroethane (71-55-6)	624	1.0	2.0
1,1,2-Trichloroethane (79-00-5)	624	1.0	2.0
Trichloroethylene (79-01-6)	624	1.0	2.0
Vinyl chloride (75-01-4)	624/SM6200B	1.0	2.0

PRIORITY POLLUTANTS (continued)

Pollutant & CAS No. (if available)	Recommended Analytical Protocol	Detection (DL) ¹ <i>µg/L unless specified</i>	Quantitation Level (QL) ² <i>µg/L unless specified</i>
BASE/NEUTRAL COMPOUNDS (compounds in bold are Ecology PBTs)			
Acenaphthene (83-32-9)	625	0.2	0.4
Acenaphthylene (208-96-8)	625	0.3	0.6
Anthracene (120-12-7)	625	0.3	0.6
Benzidine (92-87-5)	625	12	24
Benzyl butyl phthalate (85-68-7)	625	0.3	0.6
Benzo(a)anthracene (56-55-3)	625	0.3	0.6
Benzo(b)fluoranthene (3,4-benzofluoranthene) (205-99-2) ⁴	610/625	0.8	1.6
Benzo(j)fluoranthene (205-82-3) ⁴	625	0.5	1.0
Benzo(k)fluoranthene (11,12-benzofluoranthene) (207-08-9) ⁴	610/625	0.8	1.6
Benzo(r,s,t)pentaphene (189-55-9)	625	0.5	1.0
Benzo(a)pyrene (50-32-8)	610/625	0.5	1.0
Benzo(ghi)Perylene (191-24-2)	610/625	0.5	1.0
Bis(2-chloroethoxy)methane (111-91-1)	625	5.3	21.2
Bis(2-chloroethyl)ether (111-44-4)	611/625	0.3	1.0
Bis(2-chloroisopropyl)ether (39638-32-9)	625	0.3	0.6
Bis(2-ethylhexyl)phthalate	625	0.1	0.5

Pollutant & CAS No. (if available)	Recommended Analytical Protocol	Detection (DL) ¹ <i>µg/L unless specified</i>	Quantitation Level (QL) ² <i>µg/L unless specified</i>
BASE/NEUTRAL COMPOUNDS (compounds in bold are Ecology PBTs)			
(117-81-7)			
4-Bromophenyl phenyl ether (101-55-3)	625	0.2	0.4
2-Chloronaphthalene (91-58-7)	625	0.3	0.6
4-Chlorophenyl phenyl ether (7005-72-3)	625	0.3	0.5
Chrysene (218-01-9)	610/625	0.3	0.6
Dibenzo (a,i)acridine (224-42-0)	610M/625M	2.5	10.0
Dibenzo (a,h)acridine (226-36-8)	610M/625M	2.5	10.0
Dibenzo(a-h)anthracene (53-70-3)(1,2,5,6-dibenzanthracene)	625	0.8	1.6
Dibenzo(a,e)pyrene (192-65-4)	610M/625M	2.5	10.0
Dibenzo(a,h)pyrene (189-64-0)	625M	2.5	10.0
3,3-Dichlorobenzidine (91-94-1)	605/625	0.5	1.0
Diethyl phthalate (84-66-2)	625	1.9	7.6
Dimethyl phthalate (131-11-3)	625	1.6	6.4
Di-n-butyl phthalate (84-74-2)	625	0.5	1.0
2,4-dinitrotoluene (121-14-2)	609/625	0.2	0.4
2,6-dinitrotoluene (606-20-2)	609/625	0.2	0.4

PRIORITY POLLUTANTS (continued)

Pollutant & CAS No. (if available)	Recommended Analytical Protocol	Detection (DL) ¹ <i>µg/L unless specified</i>	Quantitation Level (QL) ² <i>µg/L unless specified</i>
BASE/NEUTRAL COMPOUNDS (compounds in bold are Ecology PBTs)			
Di-n-octyl phthalate (117-84-0)	625	0.3	0.6
1,2-Diphenylhydrazine (<i>as Azobenzene</i>) (122-66-7)	1625B	5.0	20
Fluoranthene (206-44-0)	625	0.3	0.6
Fluorene (86-73-7)	625	0.3	0.6
Hexachlorobenzene (118-74-1)	612/625	0.3	0.6
Hexachlorobutadiene (87-68-3)	625	0.5	1.0
Hexachlorocyclopentadiene (77-47-4)	1625B/625	0.5	1.0
Hexachloroethane (67-72-1)	625	0.5	1.0
Indeno(1,2,3- <i>cd</i>)Pyrene (193-39-5)	610/625	0.5	1.0
Isophorone (78-59-1)	625	0.5	1.0
3-Methyl cholanthrene (56-49-5)	625	2.0	8.0
Naphthalene (91-20-3)	625	0.3	0.6
Nitrobenzene (98-95-3)	625	0.5	1.0
N-Nitrosodimethylamine (62-75-9)	607/625	2.0	4.0
N-Nitrosodi-n-propylamine (621-64-7)	607/625	0.5	1.0
N-Nitrosodiphenylamine (86-30-6)	625	0.5	1.0

Pollutant & CAS No. (if available)	Recommended Analytical Protocol	Detection (DL) ¹ <i>µg/L unless specified</i>	Quantitation Level (QL) ² <i>µg/L unless specified</i>
BASE/NEUTRAL COMPOUNDS (compounds in bold are Ecology PBTs)			
Perylene (198-55-0)	625	1.9	7.6
Phenanthrene (85-01-8)	625	0.3	0.6
Pyrene (129-00-0)	625	0.3	0.6
1,2,4-Trichlorobenzene (120-82-1)	625	0.3	0.6

Pollutant & CAS No. (if available)	Recommended Analytical Protocol	Detection (DL) ¹ <i>µg/L unless specified</i>	Quantitation Level (QL) ² <i>µg/L unless specified</i>
DIOXIN			
2,3,7,8-Tetra-Chlorodibenzo-P- Dioxin (176-40-16)	1613B	1.3 pg/L	5 pg/L

PRIORITY POLLUTANTS (continued)

Pollutant & CAS No. (if available)	Recommended Analytical Protocol	Detection (DL) ¹ <i>µg/L unless specified</i>	Quantitation Level (QL) ² <i>µg/L unless specified</i>
PESTICIDES/PCBs			
Aldrin (309-00-2)	608	0.025	0.05
alpha-BHC (319-84-6)	608	0.025	0.05

Pollutant & CAS No. (if available)	Recommended Analytical Protocol	Detection (DL) ¹ <i>µg/L unless specified</i>	Quantitation Level (QL) ² <i>µg/L unless specified</i>
PESTICIDES/PCBs			
beta-BHC (319-85-7)	608	0.025	0.05
gamma-BHC (58-89-9)	608	0.025	0.05
delta-BHC (319-86-8)	608	0.025	0.05
Chlordane (57-74-9) ⁵	608	0.025	0.05
4,4'-DDT (50-29-3)	608	0.025	0.05
4,4'-DDE (72-55-9)	608	0.025	0.05 ¹⁰
4,4' DDD (72-54-8)	608	0.025	0.05
Dieldrin (60-57-1)	608	0.025	0.05
alpha-Endosulfan (959-98-8)	608	0.025	0.05
beta-Endosulfan (33213-65-9)	608	0.025	0.05
Endosulfan Sulfate (1031-07-8)	608	0.025	0.05
Endrin (72-20-8)	608	0.025	0.05
Endrin Aldehyde (7421-93-4)	608	0.025	0.05
Heptachlor (76-44-8)	608	0.025	0.05
Heptachlor Epoxide (1024-57-3)	608	0.025	0.05
PCB-1242 (53469-21-9) ⁶	608	0.25	0.5
PCB-1254 (11097-69-1)	608	0.25	0.5
PCB-1221 (11104-28-2)	608	0.25	0.5
PCB-1232 (11141-16-5)	608	0.25	0.5
PCB-1248 (12672-29-6)	608	0.25	0.5

Pollutant & CAS No. (if available)	Recommended Analytical Protocol	Detection (DL) ¹ <i>µg/L unless specified</i>	Quantitation Level (QL) ² <i>µg/L unless specified</i>
PESTICIDES/PCBs			
PCB-1260 (11096-82-5)	608	0.13	0.5
PCB-1016 (12674-11-2) ⁶	608	0.13	0.5
Toxaphene (8001-35-2)	608	0.24	0.5

1. Detection level (DL) or detection limit means the minimum concentration of an analyte (substance) that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero as determined by the procedure given in 40 CFR part 136, Appendix B.
2. Quantitation Level (QL) also known as Minimum Level of Quantitation (ML) – The lowest level at which the entire analytical system must give a recognizable signal and acceptable calibration point for the analyte. It is equivalent to the concentration of the lowest calibration standard, assuming that the lab has used all method-specified sample weights, volumes, and cleanup procedures. The QL is calculated by multiplying the MDL by 3.18 and rounding the result to the number nearest to (1, 2, or 5) x 10ⁿ, where n is an integer. (64 FR 30417).
ALSO GIVEN AS:
The smallest detectable concentration of analyte greater than the Detection Limit (DL) where the accuracy (precision & bias) achieves the objectives of the intended purpose. (Report of the Federal Advisory Committee on Detection and Quantitation Approaches and Uses in Clean Water Act Programs Submitted to the US Environmental Protection Agency December 2007).
3. 1, 3-dichloroproylene (mixed isomers) - You may report this parameter as two separate parameters: cis-1, 3-dichloropropene (10061-01-5) and trans-1, 3-dichloropropene (10061-02-6).
4. Total Benzofluoranthenes - Because Benzo(b)fluoranthene, Benzo(j)fluoranthene and Benzo(k)fluoranthene co-elute you may report these three isomers as total benzofluoranthenes.
5. Chlordane – You may report alpha-chlordane (5103-71-9) and gamma-chlordane (5103-74-2) in place of chlordane (57-74-9). If you report alpha and gamma-chlordane, the DL/PQLs that apply are 0.025/0.050.
6. PCB 1016 & PCB 1242 – You may report these two PCB compounds as one parameter called PCB 1016/1242.